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Social Adjustment ... Floyd G. Martinson

Functions of Community ... George A. Hillery, Jr.

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DIFFERENTIAL COMMUNICATION AMONG FARMERS IN A KENTUCKY COUNTY*

by A. Lee Coleman and C. Paul Marsh†

ABSTRACT

All farm operators in thirteen neighborhoods of a Kentucky county were questioned as to the media through which they learned about new farm practices. Wide differentials between neighborhoods in access to, or contact with, the various media were disclosed. Neighborhoods that ranked low in contact with one medium usually ranked low on contact with other media. Similar differentials were apparent when the respondents were grouped according to educational and socio-economic levels.

It was hypothesized, however, that the differentials among neighborhoods could not be completely accounted for by differentials in socio-economic level, and that neighborhoods where the level of adoption of new practices was high would report more contact with information sources that symbolize rationality and efficiency. The data support these hypotheses and suggest that the neighborhood differentials can be partially attributed to differences among neighborhoods in the prevailing attitudes, norms, and expectations concerning farm matters.

COMMUNICATION: CONCEPT AND PREVIOUS RESEARCH

The term *communication* is becoming increasingly prominent in social science literature and discussions. During the past five or six years, several books and numerous articles and sections of books with titles including the word *communication* have appeared.[1] Within sociology, both general and rural sociologists have been researching and writing on this subject.

That communication is a subject of considerable *practical* importance is attested to by the large amounts of money and effort expended by public and private agencies to disseminate information and influence or motivate people. The extent and effectiveness of the propaganda activities of certain totalitarian governments provide dramatic evidence of the importance and

*The investigation reported in this paper is in connection with a project of the Kentucky Agricultural Experiment Station and is published by permission of the director. The assistance of James N. Young in the preparation of this paper is gratefully acknowledged. This paper was read at a joint session of the Rural Sociological Society and the American Sociological Society, during the annual meeting at the University of Illinois, Urbana, Ill., Sept., 1954.

†University of Kentucky, Lexington, Ky.

[1] See, for example: Bernard Berelson and Morris Janowitz, *Reader in Public Opinion and Communication* (Glencoe, Ill.: The Free Press, 1950); Wilbur Schramm, *Mass Communications* (Urbana, Ill.: University of Illinois Press, 1949); Lyman Bryson, *The Communication of Ideas* (New York: Harper & Bros., 1948); Robert K. Merton, Introduction to Part III, "The Sociology of Knowledge of Mass Communication" in *Social Theory and Social Structure* (Glencoe, Ill.: The Free Press, 1949), pp. 199-216; Carl Hovland, Arthur A. Lumsdaine, and Fred D. Sheffield, *Experiments on Mass Communication* (*Studies in Social Psychology in World War II*, Vol. III [Princeton, N. J.: Princeton University Press, 1949]); Paul F. Lazarsfeld and Frank Stanton, *Communication Research, 1948-1949* (New York: Harper & Bros., 1949); Jurgen Ruesch and Gregory Bateson, *Communication, the Social Matrix of Psychiatry* (New York: W. W. Norton and Co., 1951); Louis Wirth, "Consensus and Mass Communication," *American Sociological Review*, XIII (Feb., 1948), pp. 1-14; E. deS. Brunner, "Rural Communication Behavior and Attitudes in the Middle East," *Rural Sociology*, XVIII:2 (June, 1953), pp. 149-155; Selz C. Mayo and William E. Barnett, "Neighbor Groups—An Informal System of Communication," *Rural Sociology*, XVII:4 (Dec., 1952), pp. 371-374; and E. A. Wilkening, "Sources of Information for Improved Farm Practices," *Rural Sociology*, XV:1 (Mar., 1950), pp. 19-30.

the possibilities of this field. Within agriculture, the multifold activities and programs of the land-grant colleges and other action and educational agencies all center around or involve communication in some of its forms. The increasing interest of the agricultural colleges and agencies in the study of communication is indicated by the recent establishment of the National Project in Agricultural Communications, located at Michigan State College and financed by a grant from the Kellogg Foundation, and by the national conference on agricultural communications held recently at this center.

Communication, of course, is not a new term, either in general usage or as a social science concept. Two of the earlier social scientists to make extensive use of the term were Charles Cooley and John Dewey.[3] The development and extension of the term as a social science concept has not basically changed its meaning from that of the layman.

The term *communication* is often used in a very broad sense, and sometimes in a more narrow sense. In the broadest meaning, all educational and action programs in agriculture *are* communication. If one is conducting a program designed to secure the adoption of new agricultural innovations, the extent to which such adoption takes place is in large degree a measure of the success that those responsible for the program have had in "communicating" their ideas.

Various analytical schemes for the study of communication have been proposed.[5] For present purposes, it seems adequate to think of the communication process in terms of five elements which determine the possibility and effectiveness of communication: (*1*) the person or group originating the "message"—the *communicator*; (*2*) the content of the message—that which is to be communicated; (*3*) the medium or media employed; (*4*) the person or persons receiving the message — the *communicatee*; and (*5*) the response manifested by the communicatee.[4]

[3] See Charles H. Cooley, *Social Organization* (New York: Charles Scribner's Sons, 1909), pp. 61-65, 80-103; and John Dewey, *Experience and Nature* (Chicago: Open Court Pub. Co., 1925), chap. V.

[5] See John E. Ivey, Jr., "Communications as a Social Instrument," in Wilbur Schramm, *Communications in Modern Society* (Urbana, Ill.: University of Illinois, 1948), pp. 143-155. Emphasis here is on relating and blending together the concept of social situation and the idea of communication situation. " . . . the theory of communication must include the role of custom, leadership patterns in the community, and face-to-face contacts along with the forces of radio, newspaper, film, and other more impersonal devices of getting information to people. These two must somehow be blended."

See also Jurgen Ruesch and Gregory Bateson, *op. cit.*, chap. 11. The authors suggest a scheme whereby the communicative processes of receiving, evaluating, and transmitting would be observed at the intrapersonal, interpersonal, group, and cultural levels of organization. "At the intrapersonal level, the focus of the observer is limited by the self, and the various functions of communication are found within the self. At the interpersonal level the perceptual field is occupied by two people, at the group level by many people and at the cultural level by many groups. Concomitantly, in each of these fields, the importance of the single individual diminishes, and at the higher levels one person becomes only a small element in the system of communication."

For further discussions, largely on the theory of communication, see sections by C. H. Cooley, G. H. Mead, Edward Sapir, R. E. Park, C. I. Hovland, and others, in B. Berelson and M. Janowitz, *op. cit.*, pp. 143-191.

[4] Hovland suggests a somewhat similar scheme by stating that communication is the "process by which an individual (the communicator) transmits stimuli (usually verbal symbols) to modify the behavior of other individuals." The research task, he further states, is "the analysis of four factors: (*1*) the *communicator* who transmits the communication; (*2*) the *stimuli* transmitted by the communicator; (*3*) the individuals who respond to the communica-

[*footnote continued on next page*]

Communication may break down or become ineffective at any one of these points and, conversely, effective communication requires that attention be paid to all five aspects of the process. Differential communication, moreover, can occur at any or all of the five points, or result from impediments at each level. Although these five aspects have been unequally emphasized in research to date, it would be difficult to show that any one aspect is more important than the others.

Although the focus has not been specifically on the process of communication, *per se*, recent rural sociological research literature has emphasized differentials in the socio-economic characteristics of farmers and in the rate and extent of their knowledge and adoption of new farming technology.[5] Despite this, most agricultural agencies and programs seem to operate as if there were no such differentials—that is, they offer a broadside "exposure" to all the farmers of an area, on the implicit assumption that farmers are equally in position to "take it or leave it." It would seem that a program designed to secure relatively equal acceptance among all segments of the farmer population would take explicit account of differential communication and the associated socio-economic factors which act as barriers or accelerators to effective communication, and would vary the intensity of communication accordingly.

tions; (4) the *responses* made to the communication by the communicatee. See section by Carl I. Hovland, in B. Berelson and M. Janowitz, *ibid.*, p. 182.

[5] See, for example, E. A. Wilkening, *Acceptance of Improved Farm Practices in Three Coastal Plain Counties*, North Carolina AES Tech. Bull. No. 98 (Raleigh, N. C., May, 1952); D. L. Gibson, "The Clientele of the Agricultural Extension Service," *Michigan Agricultural Experiment Station Quarterly Bulletin*, XXVI:4 (May, 1944); Herbert F. Lionberger, *Low Income Farmers in Missouri: Their Contacts with Potential Sources of Farm and Home Information*, Missouri AES Research Bull. 441 (Columbia, Mo., May, 1949); and Lee Coleman, "Differential Contact with Extension Work in a New York Rural Community," *Rural Sociology*, XVI:3 (Sept., 1951). Also see journal articles by Wilkening and Lionberger referred to elsewhere in this paper.

THE KENTUCKY STUDY

The present paper reports some data from a study in a single Kentucky county. It suggests some interpretations, and proposes some hypotheses for testing in the further study of the communication process. Located in the Outer Bluegrass region of Kentucky, the county has a relatively prosperous tobacco-livestock agriculture. Somewhat over half the county consists of rather rough, hilly land while the remaining area is moderately rolling. In the rougher area, the farms are predominantly small and poor, while in the area of better land they are larger and quite productive. The county is entirely rural; the county-seat has a population of approximately 2,300, and the three small hamlets each have a population of a few hundred. The county depends almost entirely upon its agriculture for its income, and it is not adjacent to any large towns or industrial areas. In spite of this, however, the county is generally regarded as being in the top quartile of Kentucky counties both economically and in terms of the quality of its organized agricultural program.

Field work was carried out in the county during the summer and fall of 1950. At that time there was an active and a well-established extension program, staffed by a county agricultural agent, an assistant agricultural agent, and a home demonstration agent. This was regarded as one of the "better" extension programs in the state. A county soil conservation district had been established for several years, and several hundred farmers had signed as cooperators. The Production and Marketing Administration had the usual

county and community committees administering the program of incentive payments for soil conservation practices. The Farmer's Home Administration served the county, but the number of clients was relatively small. There were five veterans' on-the-farm training classes in agriculture, and vocational agriculture teachers in several high schools. These agencies and professional agricultural personnel are important originators of communication relating to agriculture within the county.

Personal interviews were conducted with 393 farm operators, residing in thirteen "neighborhoods" of the county. The neighborhoods were selected to include different areas, topography, and economic levels in the county and to include the several neighborhoods making up one entire trade-center "community."[6] All owner-operators and operating tenants in the neighborhoods were interviewed, except for the negligible number who were ill or unavailable. The interviews were conducted by graduate students and staff members in rural sociology, all of whom had had some training in field work.

INTRACOUNTY DIFFERENTIALS

The data from the study relate to all five aspects of the communication process, although perhaps more to *media* than to any other aspect. These data provide documentation as to the extent of the differentials in access to, or contact with, the several media, within a single county. Such access or contact, of course, sets limits to possible communication.

The importance of the county as a political and administrative unit often tends to obscure variations within counties. There is a tendency to think of a given characteristic or behavior trait, for which a county measure is available, as distributed evenly throughout the county. But the variation among the thirteen neighborhoods in the sample indicates quite the contrary. For example, in one neighborhood only one farmer in ten said that he had read a farm bulletin during the two years prior to the study. At the opposite extreme, in another neighborhood, nine out of ten farmers had read one or more bulletins. The ranges for some other media and contacts were as follows, for the two-year period:

	Per cent
Read farm magazines.....	50 to 97
Attended a farm meeting or demonstration	11 to 65
Talked with a professional agricultural adviser	19 to 94
Got help or information from the county agent..	43 to 100
Got help or information from soil conservation district	7 to 75

These differentials are cumulative, in that the neighborhoods that ranked low on one of the indices usually ranked low on the others. For the five media and information sources just mentioned, the *average rank* of the thirteen neighborhoods varied from 1.5 to 12.5.

There were also widespread differentials among farmers at different socio-economic levels, as is indicated in the comparison of five "size-of-operation" groups, ranging from the very small "patch" farms to farms of two-man size and larger. The variation in contact with communications media and

[6] The delineation of the neighborhoods and communities had been made several years earlier by extension personnel and rural sociologists, and was being used as a basis for the local extension program. In the analysis of the data, it is assumed that these have some social meaningfulness as area divisions and sampling units, but this limited use of the neighborhood-community concept does not necessarily imply that the authors take the extreme "pro" proposition in the current controversy over neighborhoods and communities.

other information sources was as follows:

Of all farm operators in each group, per cent who:	*Smallest farms*	*Largest farms*
Read farm magazines	63	100
Attended a farm meeting or demonstration	11	81
Talked with a professional agricultural adviser	21	100
Got help or information from the county agent	55	100
Got help or information from soil conservation district	16	65

Similar differentials were apparent when the respondents were grouped according to educational level and by their scores on the Sewell Scale of Socio-economic Status. To some extent the neighborhood variation and the differentials on the basis of socio-economic indices reflect the same basic factors, since the small, low-income, poorly educated farmers are heavily concentrated in certain neighborhoods.

TOWARD INTERPRETATION

It was hypothesized, however, that the differentials among neighborhoods could not be completely accounted for by differentials in socio-economic level. Neighborhoods were selected as the sampling unit on the hypothesis that neighbors influence one another in making decisions on farming matters. The facts that there are wide variations among neighborhoods as to socio-economic characteristics, and that socio-economic status is related to the use of given sources of information, suggest that neighborhood differences in the use of communication media may possibly be attributed to socio-economic differences rather than to interpersonal influences.

There were too few cases in each neighborhood to permit analysis by neighborhoods with socio-economic variables held constant. To make further analysis possible, the neighborhoods were combined into three groups. This grouping was made on the basis of an index of approved practice-adoption. Information had been obtained on the extent to which each respondent had tried and was following 21 recommended farm practices. A practice-adoption score was computed for each respondent. This score was the percentage of applicable practices that the farm operator had adopted. Thus, if 16 practices applied to a farm and the operator had adopted eight of them, his practice-adoption score was 50.

The mean score for all respondents was 40, but the mean scores among neighborhoods ranged from 25 to 57. The means of the four neighborhoods having the lowest scores ranged from 25 to 33. These four neighborhoods were grouped together and are hereafter referred to as "low areas." The next five neighborhoods, with a range of 39 to 44 in their mean scores, were grouped as "medium areas." The top four neighborhoods, with mean scores ranging from 50 to 57, are termed "high areas."

These groupings on the basis of adoption scores are made on the assumption that attitudes, norms, and expectations influencing adoption will vary by neighborhoods, and that attitudes, norms, and expectations are partially reflected in adoption scores. It has been shown in another paper that the differences among areas in adoption of practices cannot be accounted for by differences in socio-economic levels alone.[7]

[7] See C. Paul Marsh and A. Lee Coleman, "The Relation of Neighborhood of Residence to Adoption of Recommended Farm Practices," *Rural Sociology*, XIX:4 (Dec., 1954), pp. 385-389.

TABLE 1. PERCENTAGE OF RESPONDENTS REPORTING CONTACTS WITH SELECTED SOURCES OF INFORMATION, BY TYPE OF NEIGHBORHOOD

Source of information	Type of neighborhood		
	Low adoption areas ($N = 156$)	Medium adoption areas ($N = 139$)	High adoption areas ($N = 98$)
	Per cent	*Per cent*	*Per cent*
Farm papers or magazines	70	88	93
Newspapers	52	71	85
Radio	82	88	89
Farm meetings	19	36	53
Talking with professional agricultural advisers	34	66	82
Farm bulletins	28	50	69
County agent's letters	63	84	86
Dealers or salesmen	27	29	49
Friends, neighbors, or relatives	88	82	97

If there are differences among neighborhoods in attitudes, norms, and expectations regarding farm practices, one would also expect differences in the use of the various media and sources of information for farming matters. Presumably the emphasis in the areas of high adoption tends more toward "efficient" and "scientific" agriculture, while in the areas of low adoption, group sanctions are attached more to traditional practices. One would expect, then, that farmers in the "high areas" would report more extensive contact with and use of the sources that have come to symbolize "efficiency" and "science," particularly the Extension Service and the other agricultural agencies.

The data support this hypothesis. For example, 19 per cent of the operators in "low adoption areas" reported that they had attended farm meetings sponsored by one or more of the agricultural agencies during the two years preceding the study, as compared with 36 per cent of those in the "medium adoption areas," and 53 per cent in the "high adoption areas" (Table 1). Similarly, only 34 per cent of those in "low areas" reported that they had talked personally with a professional agricultural adviser during the two previous years, as compared with 66 per cent in the "medium areas" and 82 per cent in the "high areas." There were similar differentials by type of neighborhood in the use of the following media: newspapers, magazines, circular letters from the county agent, and farm bulletins. A corresponding but less marked relationship was found between type of neighborhood and the proportion of farmers listening to farm programs on the radio.

Almost all respondents reported receiving farming information from "friends, neighbors, and relatives," so that the differences between neighborhoods on this index were small. The relationship here did not prove consistent with the type of neighborhood —more respondents in the "high areas" (97 per cent) reported friends, neighbors, and relatives as sources of information than in the other two areas, while the lowest proportion (82 per cent) was reported by those living in the "medium areas."

Although there are too few cases for comparing types of neighborhoods with several variables controlled simultaneously, comparisons with education, value of products, and socio-economic

TABLE 2. PERCENTAGE OF RESPONDENTS REPORTING CONTACTS WITH SELECTED SOURCES OF INFORMATION, BY EDUCATION AND TYPE OF NEIGHBORHOOD

Source of information	Completed 8 grades or less			Completed more than 8 grades		
	Low areas ($N = 144$)	Medium areas ($N = 102$)	High areas ($N = 50$)	Low areas ($N = 12$)*	Medium areas ($N = 37$)	High areas ($N = 48$)
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Farm papers or magazines	69	84	90	.....	95	96
Newspapers	50	66	80	.....	95	97
Radio	83	87	88	.....	92	90
Farm meetings	15	27	42	.....	60	65
Talking with professional agricultural advisers	31	58	72	.....	81	92
Farm bulletins	24	40	52	.....	78	88
County agent's letters	61	82	84	.....	89	88
Dealers or salesmen	26	28	54	.....	32	44
Friends, neighbors, relatives	88	78	98	.....	92	96

*Percentages are not presented when there are fewer than 30 cases.

TABLE 3. PERCENTAGE OF RESPONDENTS REPORTING CONTACTS WITH SELECTED SOURCES OF INFORMATION, BY SCORE ON THE SEWELL SCALE OF SOCIO-ECONOMIC STATUS AND TYPE OF NEIGHBORHOOD

Source of information	Score of 73 or less			Score of more than 73		
	Low areas ($N = 125$)	Medium areas ($N = 58$)	High areas ($N = 19$)*	Low areas ($N = 30$)	Medium areas ($N = 81$)	High areas ($N = 79$)
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Farm papers or magazines	66	77	.....	87	90	96
Newspapers	44	58	.....	87	80	91
Radio	81	83	.....	90	93	94
Farm meetings	13	16	.....	47	48	61
Talking with professional agricultural advisers	32	43	.....	43	80	90
Farm bulletins	58	72	.....	87	93	91
County agent's letters	21	37	.....	60	59	78
Dealers or salesmen	30	21	.....	17	35	51
Friends, neighbors, relatives	87	72	.....	93	89	98

*Percentages are not presented when there are fewer than 30 cases.

status score separately held constant suggest that the differentials can only partially be accounted for by differences among neighborhoods on these particular variables (Tables 2, 3, and 4). Except for listening to farm programs on the radio and reading the county agent's letters, the differentials are similar to — though in some instances less marked than — those in the total comparisons. For instance, 31 per cent of the respondents with eight grades or less of education in "low areas" had talked with a professional agricultural adviser, as compared with 58 per cent of those of similar educational status in "medium areas" and 72 per cent of those in the "high areas." Moreover, of the respondents with a Sewell score of above 73, 47 per cent in the low adoption areas, 48 per cent in the "medium areas," and 61 per cent in the

TABLE 4. PERCENTAGE OF RESPONDENTS REPORTING CONTACTS WITH SELECTED SOURCES OF INFORMATION, BY ANNUAL VALUE OF PRODUCTS SOLD AND TYPE OF NEIGHBORHOOD

Source of information	Sales under $2,500			Sales of $2,500 or more		
	Low areas ($N = 140$)	Medium areas ($N = 73$)	High areas ($N = 25$)*	Low areas ($N = 15$)*	Medium areas ($N = 60$)	High areas ($N = 69$)
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Farm papers or magazines	69	74	.....	.....	93	97
Newspapers	52	63	.....	.....	80	94
Radio	81	85	.....	.....	92	90
Farm meetings	19	27	.....	.....	45	70
Talking with professional agricultural advisers	31	51	.....	.....	82	93
Farm bulletins	26	40	.....	.....	61	86
County agent's letters	61	73	.....	.....	97	91
Dealers or salesmen	27	25	.....	.....	37	51
Friends, neighbors, relatives	89	82	.....	.....	85	96

*Percentages are not presented when there are fewer than 30 cases.

TABLE 5. PERCENTAGE OF RESPONDENTS REPORTING EACH SOURCE OF INFORMATION AS ONE OF THOSE FROM WHICH THEY USUALLY GET THE MOST HELPFUL FARM INFORMATION, BY TYPE OF NEIGHBORHOOD

Source of information	Type of neighborhood		
	Low areas ($N = 153$)	Medium areas ($N = 133$)	High areas ($N = 96$)
	Per cent	*Per cent*	*Per cent*
Farm papers or magazines	10	15	26
Newspapers	2	6	5
Radio	42	32	25
Farm meetings	3	6	14
Talking with professional agricultural advisers	7	29	31
Farm bulletins	2	9	7
County agent's letters	3	8	2
Dealers or salesmen	2	2	3
Friends, neighbors, relatives	35	26	25
None	4	2	0

"high areas" had attended one or more farm meetings during the two years preceding the study.

The respondents were also asked to give "the one or two sources" of information which they found "most helpful" in their farming enterprise. In general, the differentials among types of neighborhoods on "most helpful" sources were similar to the differentials on information sources commonly used (Table 5). It was noted, however, that a higher proportion of the respondents in the "low areas" reported radio as a "most helpful" source than of the respondents in either of the other two groupings. In none of the areas did as many as ten per cent of the respondents consider the following sources "most helpful": newspapers, farm bulletins, the county agent's letters, or dealers and salesmen.

Radio and "friends, neighbors, and relatives" are important in all areas as "most helpful" sources. Farm papers and magazines and farm meetings and demonstrations are important as "most helpful" sources in the "high areas" but somewhat less important in "low" and "medium" areas. Also, talking personally with professional agricultural advisers was found to be quite important in both "medium" and "high" areas, but was relatively unimportant in "low areas."

As was noted above, friends, neighbors, and relatives are important sources of information for all areas. This is widely recognized by professional agricultural advisers who, realizing that they can work directly with only a small proportion of the farmers in a county, hope that the operators with whom they have direct contact will transmit their recommendations to other farmers. Thus, it is hoped that most farm operators will seek the advice of those who accept and try the recommended practices.

Wilkening found that this was not the case in a North Carolina community, where there was little difference between adoption rates of farmers in general and those reported most frequently as sources of information.[8] Lionberger found quite a different situation in a Missouri community, where those who were named as information sources were far ahead of the other farmers in the use of recommended practices.[9]

As has been reported in an earlier paper by the present authors,[10] when the neighborhoods in the Kentucky study were dichotomized as "high adoption areas" and "low adoption areas" on the same assumptions as used in the three-way grouping here, the farm operators reported most frequently as sources of information in "high areas" were considerably ahead of other farmers there in the number of recommended practices adopted. But in the "low areas" there was little difference in the extent to which farmers reported as sources of information and farmers in general had adopted these practices. If the assumptions underlying the grouping of neighborhoods are valid, the data thus support Wilkening's hypothesis that persons who are local leaders in farming matters reflect *local* values and attitudes regarding such matters.

Not only, then, are there differentials among neighborhoods in the extent to which farm operators have direct contact with the media employed by agricultural agencies, but also there appear to be differentials in the extent to which friends, neighbors, and relatives serve as media for the "message" of agricultural agencies. The hypothesis that these differentials can be partially attributed to differences among neighborhoods in the prevailing attitudes, norms, and expectations concerning farm matters should be further tested, and the conditions further specified. The present authors hope in future research to carry this kind of exploration further.

[8] E. A. Wilkening, "Informal Leaders and Innovators in Farm Practices," *Rural Sociology*, XVII:3 (Sept., 1952), pp. 272-275.

[9] Herbert F. Lionberger, "Some Characteristics of Farm Operators Sought as Sources of Farm Information in a Missouri Community," *Rural Sociology*, XVIII:4 (Dec., 1953), pp. 327-338.

[10] C. Paul Marsh and A. Lee Coleman, "Farmers' Practice-Adoption Rates in Relation to Adoption Rates of Leaders," *Rural Sociology*, XIX:2 (June, 1954), pp. 180-181.

PERSONAL ADJUSTMENT AND RURAL-URBAN MIGRATION

by Floyd M. Martinson†

ABSTRACT

The working hypothesis of this study states that there are aspects of personal adjustment that are related to and perhaps causative of migration from rural communities to urban areas.

The sample population included graduates from five Minnesota high schools. Certain factors demonstrated in previous studies to be related to migration were controlled by paired matching. Scores on two self-report personality inventories and the Kuder Preference Record, plus high-school grades and amount of extra-curricular participation in high school were used as measures of personal adjustment.

Differences were obtained on 122 of the 124 comparisons between nonmigrant and migrant groups; however, only a few of the differences approached the level of statistical significance. In general, the results indicate that social aggressiveness was an important factor in the complex of influences in the migration of girls, while academic achievement in high school and urban-oriented interests were more important in the complex of factors resulting in the migration of boys.

Selectivity in human migration has long been a subject of study, and the consistent net migration of people from rural communities to larger centers of population has been of particular concern to American rural sociologists. Is there a selectivity in this migratory pattern? and, If so, how do migrants differ from nonmigrants? These are questions that have been answered only in part at the present time.

In her review of the literature on selectivity in rural-urban migration, Dorothy S. Thomas concluded as follows:

> Examination of the literature reveals four apparently conflicting hypotheses as to the direction of this selection, insofar as it concerns cityward migration from rural areas:
>
> 1. Cityward migrants are selected from the superior elements of the parent population;
>
> 2. Cityward migrants are selected from the inferior elements;
>
> 3. Cityward migrants are selected from the extremes; i.e., both the superior and the inferior elements; and
>
> 4. Cityward migrants represent a random selection of the parent population.[1]

In reviewing the factors analyzed in previous studies of selectivity, one must conclude with Nelson that "aside from sex and age, the evidence of the selectivity of rural-urban migration is not clear."[2] Particularly impressive is the fact that "those more elusive qualities described as 'personality' "[3] have received scant attention in empirical studies, although one finds numerous references to personality adjustment and the social setting in the literature.[4]

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[1] Dorothy Swaine Thomas, "Selective Migration," *The Milbank Memorial Fund Quarterly*, XVI (Oct., 1938), p. 403.

[2] Lowry Nelson, *Rural Sociology* (Chicago: American Book Co., 1948), p. 142.

[3] Dorothy Swaine Thomas, *Research Memorandum on Migration Differentials*, Bull. 43, Social Science Research Council (New York, 1938), p. 5.

[4] Ernest R. Groves, "Psychic Causes of Rural Migration," *American Journal of Sociology*, XXI (Mar., 1916), pp. 623-627; William I. Thomas and Florian Znaniecki, *The Polish Peasant in Europe and America*, III (Boston: Richard G. Badger, Gerham Press, 1919), pp. 34-35, 38; Pitirim Sorokin, *Social Mobility* (New York: Harper & Bros., 1927), pp. 360-366; Gardner Murphy, *Personality* (New York: McGraw-Hill Book Co., Inc., 1948), pp. 426, 437.

Available empirical data are only marginally related to the question of personality adjustment as a factor in rural-urban migration.[5] The present study is an attempt to investigate the relationship between personal adjustment and migration under conditions of control. A tentative working hypothesis can be stated as follows: *There are aspects of personal adjustment which are related to, and perhaps causative of, migration from rural communities.*

DATA AND STUDY DESIGN

The sample population consisted of the 1,289 graduates in the classes of 1945 through 1949 of five Minnesota high schools, all essentially rural.[6] The data were gathered in 1949 and 1950 from records available in the high-school files. Schools were selected because of their rurality and because of available personality-adjustment data in the permanent records of the five high schools. Data relating to adjustment included scores on The Adjustment Inventory (Bell)[7] and on the Kuder Preference Record,[8] high-school grades, and a record of extra-curricular participation in the high school. Scores on the California Test of Personality[9] were also available for the graduates of the largest one of the five high schools.

In measuring the relationship between personality adjustment and migration, it is advisable to control other factors

[5] Richard L. Schanck, "Personality of Individuals and the Rural Community Pattern," *Rural Sociology*, III:2 (June, 1938), pp. 159-171; Clyde V. Kiser, *Sea Island to City* (New York: Columbia University Press, 1932), pp. 138-139; Christopher Tietze, Paul Lemkau, and Marcia Cooper, "Personality Disorders and Spatial Mobility," *American Journal of Sociology*, XLVIII (July, 1942), pp. 29-39; Benjamin Malzberg, "Mental Diseases in New York State According to Nativity and Parentage," *Mental Hygiene*, XIX (Oct., 1935), pp. 635-660; Benjamin Malzberg, "The Prevalence of Mental Diseases among the Urban and Rural Populations of New York State," *Psychiatric Quarterly*, IX (Jan., 1935), pp. 55-87; Ornulv Odegaard, "Immigration and Mental Health," *Mental Hygiene*, XX (Oct., 1936), pp. 546-553; Nathan Blackman and Seymour G. Klebanoff, "The Role of the Rural Socio-Cultural Factors in the Functional Psychoses," *Psychiatric Quarterly*, XVIII (Apr., 1944), pp. 301-315; Evelyn Ellis, "Social Psychological Correlates of Upward Social Mobility among Unmarried Career Women," *American Sociological Review*, XVII (Oct., 1952), pp. 558-563.

[6] Cannon Falls, Mountain Iron, Red Lake Falls, Glencoe, and Hutchinson.

[7] "*The Adjustment Inventory* provides four separate measures of personal and social adjustment: (*a*) *Home Adjustment*—Individuals scoring high tend to be unsatisfactorily adjusted to their home surroundings. Low scores indicated satisfactory home adjustment. (*b*) *Health Adjustment*—High scores indicate unsatisfactory health adjustment; low scores, satisfactory adjustment. (*c*) *Social Adjustment*—Individuals scoring high tend to be submissive and retiring in their social contacts. Individuals with low scores are aggressive in social contacts. (*d*) *Emotional Adjustment*—Individuals with high scores tend to be unstable emotionally. Persons with low scores tend to be emotionally stable."—Hugh M. Bell, *Manual for the Adjustment Inventory*, Student Form (Stanford University, Cal.: Stanford University Press), p. 1.

[8] The Kuder Preference Record attempts to obtain an objective score of a person's occupational preferences in nine broad occupational spheres, including mechanical, computational, scientific, persuasive, artistic, literary, musical, social service, and clerical. G. Frederic Kuder, *Kuder Preference Record, Vocational* (Chicago: Science Research Associates, 1948).

[9] E. W. Tiegs, W. W. Clark, and L. P. Thorpe, *California Test of Personality—Secondary, Form A* (Los Angeles: California Test Bureau, 1942).

The California Test of Personality is a "profile of personal and social adjustment" designed to "reveal the extent to which the student is adjusting to the problems and conditions which confront him and is developing normal, happy, and socially effective personality." E. W. Tiegs, W. W. Clark, and L. P. Thorpe, *Manual of Directions, California Test of Personality—Secondary Series* (Los Angeles: California Test Bureau, 1942), p. 1.

known to be related to migration.[10] Such control in an *ex post facto* design can be carried out by factor equating, either through precision control by individual paired matching or through matching of frequency distributions. If it can be applied without too great a loss of cases, paired matching is preferable, in that the cases are individually matched on each of the control factors and the environment of related factors is treated as a unit rather than as a set of discrete factors. In the present study of the effect of personality adjustment on migration, it seemed desirable to make the total environment of other factors known to be associated with migration as similar as possible. Control of these related factors by individual paired matching ensures at least a rough homogeneity in the environment of the two individuals compared. For want of space, evidence of relationships between the controlled variables and migration will not be presented.[11]

Data were available in the permanent records of the high schools—on age, sex, amount of education, place of residence (town or farm), size and location of community, year of graduation, and socio-economic status (as indicated by father's occupation). "Amount of education" was automatically controlled, since only high-school graduates were used in the sample. Residence and sex were controlled by dividing the migrants and nonmigrants into sex-residence categories. Within each category, the cases were then matched on the remaining four variables.

Of the original 1,289 cases, 65 were in the armed forces and 30 had incomplete records. Matching further reduced the sample to 494 cases (all that could be paired on the four variables), or 38 per cent of the original sample. This final group of 247 pairs consisted of the following subgroups:

1. Nonmigrant farm boys—migrant farm boys (49 matched pairs).
2. Nonmigrant nonfarm boys—migrant nonfarm boys (45 matched pairs).
3. Nonmigrant farm girls—migrant farm girls (102 matched pairs).
4. Nonmigrant nonfarm girls—migrant nonfarm girls (51 matched pairs).

The major source of personality adjustment data was the Bell Adjustment Inventory. As previously indicated, other indices used for the entire group were the Kuder Preference Record, high-school grades, and extra-curricular participation in high school. A second self-report personality inventory, the California Test of Personality, had been administered to the students in the graduation classes of 1945 to 1948 in one of the high schools. Since this test had been administered to only a small portion of the total sample, the matched samples are very small in size where data from this test are utilized, ranging from 11 matched pairs of nonfarm boys to 29 matched pairs of farm girls.

METHOD OF ANALYSIS

The probability frame of reference is used in evaluating the findings. Because of the limitations of this frame of reference with nonrandom samples as in experimental design, no generalizations are made to any universe from the results herein described.

The standard error is used in evaluating the differences between means. All differences are expressed in terms of the ratio of a difference to its standard error. Matching introduces correla-

[10] F. Stuart Chapin, *Experimental Design in Sociological Research* (New York: Harper & Bros., 1947), p. 109.

[11] Floyd M. Martinson, "Some Personality Adjustment Differences of Rural Nonmigrants and Migrants" (unpublished Ph.D. dissertation, University of Minnesota, June, 1953).

tion; however, all *t*-values are corrected for correlation[12] by using the formula $\sigma_{m_x - m_y} = \frac{\sigma_d}{\sqrt{N-1}}$. Instead of N, N-1 is used in the denominator to take account of the fact that the numerator is the standard error of the difference between means of the samples, which means must be considered as estimates of the true parameter of the population.[13]

Following Chapin's suggestion regarding the significance of differences between groups rendered homogeneous by selection and control, a critical ratio, or *t*-value, of 2.0 will be accepted in the present analysis as indicative of a real rather than a chance difference between the groups being compared.[14] A *t*-value of 2.0 corresponds to a difference significant at the 5-per-cent level of confidence, or a difference that would not be expected to occur by chance more than five times in a hundred.[15]

SIGNIFICANT DIFFERENCES: GIRLS

As can be seen in Table 1, there is only one mean score difference between nonmigrant and migrant nonfarm girls that is significant at the 5-per-cent level. This difference, on social adjustment scores, has a *t*-value of 2.23 ($.05>P>.02$). High scores on social adjustment are interpreted as indicating that the person is socially retiring, and low scores, that the person is socially aggressive. Thus, the migrant nonfarm girls as a group appear to be significantly more aggressive socially than the nonmigrant nonfarm girls.

It is true with the farm girls, also, that the migrants are significantly more aggressive socially (t—2.79, $.01>P>.001$). (See Table 1.) This is borne out also in the extra-curricular participation scores. The nonmigrant farm girls took part in an average of 4.2 activities, and the migrant farm girls took part in an average of 7.01 activities. The mean difference of 2.81 activities is highly significant (t—4.76, $.001>P$). There is only one other mean score difference that is statistically significant when the two groups of farm girls are compared. The nonmigrant farm girls have a significantly higher clerical interest (t—2.85, $.01>P>.001$). The high-school graduate need not migrate from the home community to satisfy this interest, as indicated by the fact that many of the farm girls who do not migrate from the home community apparently "migrate" to a trade center within the boundaries of the home community and become stenographers or secretaries. This is borne out by an analysis of the occupations of the 174 nonmigrant farm girls. Only 40 per cent could be classified as working "at home" (including those who married and established homes of their own). Of the 60 per cent who had apparently "migrated" to a trade center within the home community or were commuting to work in such centers from farm homes, 22 per cent were doing office work.

SIGNIFICANT DIFFERENCES: BOYS

Among nonfarm boys, the decision to migrate seems to have been related to two factors, adjustment and interests. The migrant nonfarm boys took part in a significantly greater number of extra-curricular activities in high school (Table 2). The mean difference of 5.13 has a *t*-value of 3.49 and is significant at the .001 level. The mi-

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[12] Charles C. Peters and Walter R. VanVorhis, *Statistical Procedures and Their Mathematical Bases* (New York: McGraw-Hill Book Co., Inc., 1940), p. 165.

[13] George W. Snedecor, *Statistical Methods* (Ames: The Iowa State College Press, 1946), p. 38.

[14] Chapin, *op. cit.*, pp. 107-108.

[15] The greater the value of *t*, the more confident we are that the difference is a real rather than a chance occurrence.

TABLE 1. PERSONALITY ADJUSTMENT DIFFERENCES OF MIGRANT AND NONMIGRANT GIRLS, FARM AND NONFARM

Measure of adjustment	Nonfarm girls					Farm girls				
	Number of pairs	Mean score		Mean score difference	t	Number of pairs	Mean score		Mean score difference	t
		Non-migrant	Migrant				Non-migrant	Migrant		
Bell Adjustment Inventory:										
Home adjustment	51	7.65	8.94	1.29	1.24	101	7.00	7.77	.77	1.01
Health adjustment	51	7.94	7.96	.02	.02	101	7.09	7.71	.62	1.10
Social adjustment	51	15.61	12.75	2.86	[1] 2.23	101	16.38	13.98	2.40	[2] 2.79
Emotional adjustment	51	15.29	16.10	.81	.63	101	15.71	14.62	1.09	1.47
Total adjustment	51	46.16	46.12	.04	.01	101	45.80	44.25	1.55	.74
High-school grades	50	86.34	86.38	.04	.05	95	84.65	85.54	.89	1.64
Extra-curricular participation	45	10.18	10.44	.26	.19	88	4.20	7.01	2.81	[3] 4.76
Kuder Preference Record:										
Mechanical	46	48.09	42.61	5.48	1.73	96	45.23	46.04	.81	.51
Computational	46	32.07	36.22	4.15	1.48	96	34.31	31.56	2.75	1.91
Scientific	46	43.11	47.41	4.30	1.03	96	44.75	47.77	3.22	1.44
Persuasive	46	60.04	56.46	3.58	1.11	96	65.98	63.72	2.26	1.23
Artistic	46	57.83	54.15	3.68	.95	96	51.75	53.20	1.45	.69
Literary	46	42.76	49.15	6.39	1.74	96	44.07	45.77	1.70	1.01
Musical	46	33.65	35.54	1.89	.46	96	25.59	25.46	.13	.09
Social service	46	76.78	76.22	.56	.12	96	78.58	82.02	3.44	1.32
Clerical	46	66.59	67.22	.63	.16	96	78.40	71.67	6.75	[2] 2.85
California Test of Personality:										
Self adjustment	17	69.88	68.53	1.35	.47	28	67.71	67.42	.29	.13
Self-reliance	16	9.56	10.31	.75	.97	28	8.75	9.89	1.14	1.78
Sense of personal worth	16	11.69	12.00	.31	.51	28	12.03	12.21	.18	.34
Sense of personal freedom	16	13.56	13.13	.43	.96	28	12.71	11.89	.82	1.61
Feeling of belonging	16	13.00	12.63	.37	.73	28	12.78	12.71	.07	.14
Freedom from withdrawing tendencies	16	11.06	9.94	1.12	1.00	28	10.46	10.79	.33	.45
Freedom from nervous symptoms	16	10.38	9.81	.57	.88	28	10.57	10.00	.57	.73
Social adjustment	17	74.47	71.24	3.25	1.37	28	74.89	72.89	2.00	1.19
Social standards	16	14.31	13.94	.37	1.06	28	13.93	13.64	.29	.91
Social skills	16	11.88	11.81	.07	.10	28	11.82	11.50	.32	.63
Freedom from anti-social tendencies	16	13.00	12.38	.62	1.09	28	12.86	12.93	.07	.14
Family relations	16	12.69	11.94	.75	1.34	28	13.14	12.14	1.00	1.69
School relations	16	11.69	11.06	.63	.93	28	11.64	11.86	.22	.59
Community relations	16	10.88	10.31	.57	.76	28	11.50	10.82	.68	1.11
Total adjustment	17	143.47	139.76	3.71	.74	28	142.25	140.25	2.00	.53

[1] Significant at the .05 level of confidence.
[2] Significant at the .01 level of confidence.
[3] Significant at the .001 level of confidence.

TABLE 2. PERSONALITY ADJUSTMENT DIFFERENCES OF MIGRANT AND NONMIGRANT BOYS, FARM AND NONFARM

Measure of adjustment	Nonfarm boys					Farm boys				
	Number of pairs	Mean score		Mean score difference	t	Number of pairs	Mean score		Mean score difference	t
		Non-migrant	Migrant				Non-migrant	Migrant		
Bell Adjustment Inventory:										
Home adjustment	45	6.98	7.11	.13	.13	49	6.27	7.96	1.69	1.69
Health adjustment	45	6.47	6.02	.45	.63	49	6.43	6.65	.22	.23
Social adjustment	45	14.56	13.82	.74	.57	49	14.90	13.12	1.78	1.42
Emotional adjustment	45	10.09	8.31	1.78	1.67	49	8.47	10.71	2.24	[1] 2.02
Total adjustment	45	37.87	35.27	2.60	1.00	49	36.43	38.29	1.86	.61
High-school grades	42	82.83	87.57	3.74	[2] 3.49	44	83.66	86.50	2.84	[2] 3.02
Extra-curricular participation	39	8.33	13.46	5.13	3.59	47	5.81	9.74	3.93	3.45
Kuder Preference Record:										
Mechanical	42	89.19	78.57	10.62	[1] 2.54	48	92.10	83.56	8.54	2.23
Computational	42	35.36	43.00	7.64	[1] 2.59	48	31.33	34.15	2.82	1.32
Scientific	42	57.33	71.45	14.12	[3] 3.79	48	65.31	69.85	4.54	1.56
Persuasive	42	67.38	74.02	6.64	1.58	48	70.40	69.15	1.25	.46
Artistic	42	51.05	48.12	2.93	.72	48	50.31	43.75	6.56	2.09
Literary	42	38.86	42.36	3.50	1.30	48	38.44	44.54	6.10	[2] 2.72
Musical	42	17.55	18.67	1.12	.42	48	13.77	16.38	2.61	1.36
Social service	42	57.95	57.88	.07	.02	48	64.38	65.35	.97	.32
Clerical	42	56.74	51.52	5.22	1.67	48	52.69	52.73	.04	.02
California Test of Personality:										
Self adjustment	*11*	*66.73*	*67.91*	*1.18*	*.42*	*15*	*68.13*	*65.26*	*2.87*	*1.30*
Self-reliance	11	10.27	9.82	.45	.63	14	10.78	10.07	.71	.81
Sense of personal worth	11	11.73	11.27	.46	.65	14	11.92	11.50	.42	.39
Sense of personal freedom	11	13.00	13.64	.64	1.36	14	11.64	12.78	1.14	1.37
Feeling of belonging	11	12.45	11.09	1.36	1.15	14	12.21	11.14	1.07	1.45
Freedom from withdrawing tendencies	11	9.82	10.45	.63	.68	14	10.64	9.42	1.22	1.69
Freedom from nervous symptoms	11	9.45	11.64	2.19	[2] 3.22	14	10.78	10.14	.64	.65
Social adjustment	*11*	*68.55*	*67.27*	*1.28*	*.34*	*15*	*68.93*	*67.33*	*1.60*	*.78*
Social standards	11	13.09	12.45	.64	.68	14	13.07	12.85	.22	.33
Social skills	11	9.91	9.91	.00	.00	14	10.35	9.85	.50	.54
Freedom from anti-social tendencies	11	12.09	12.45	.36	.41	14	11.64	11.35	.29	.49
Family relations	11	12.00	11.91	.09	.08	14	12.42	10.71	1.71	[1] 2.28
School relations	11	11.73	10.91	.82	1.05	14	11.21	11.42	.21	.26
Community relations	11	9.91	9.64	.27	.29	14	11.86	10.07	1.79	[1] 2.56
Total adjustment	11	135.27	135.27	.00	.00	15	139.20	132.60	6.60	1.66

[1] Significant at the .05 level of confidence.
[2] Significant at the .01 level of confidence.
[3] Significant at the .001 level of confidence.

grants also indicate a greater freedom from nervous symptoms (t—3.22, $.01>P>.001$) and better emotional adjustment. In academic matters, the migrant nonfarm boys made a better showing, with significantly higher grades (t—3.49, $.01>P>.001$) and significantly higher computational (t—2.59, $.02>P>.01$) and scientific (t—3.79, $.001>P$) interest scores. On the other hand, the nonfarm boys who stayed in the home community had higher mechanical interest scores (t—2.54, $.02>P>.01$). This difference in mechanical interest is clearly observable in the choice of occupations following high-school graduation. The larger group of nonmigrants were laborers or construction workers (30.5 per cent), store clerks (15.5 per cent), mechanics (12 per cent), or farm workers (9 per cent) in the home community, while 83.5 per cent of the nonfarm boys who migrated attended school after migrating.

There are more statistically significant differences between farm boys, nonmigrant and migrant, than in any of the other three groups (Table 2). As with the nonfarm boys, the farm boys' decision to migrate seems to be related to adjustment and interests. The nonmigrant farm boys had more favorable emotional-adjustment scores (t—2.02, $.05>P>.02$), better family relationships (t—2.28, $.05>P>.02$), and better community relationships (t—2.56, $.05>P>.02$). The mechanical interests of these boys were also more pronounced than for the migrants (t—2.23, $.05>P>.02$). On the other hand, farm boys who migrated had significantly higher high-school grades (t—3.02, $.01>P>.001$). Extra-curricular participation (t—3.45, $.01>P>.001$) and literary interests (t—2.72, $.01>P>.001$) also favored the migrants. These differences again are reflected in occupational choices after graduation from high school. Of the farm boys who remained in the home community, 84 per cent continued to work on the farm. Of those who migrated, 70 per cent were continuing their education beyond high school.

The author is at a loss to explain the significantly higher artistic-interest scores of the nonmigrant farm boys. However, according to Brayfield,[16] "experience seems to indicate that significant scores on the Kuder artistic key are 'easier to get' than significant ratings on the Strong artistic key. The Kuder artistic scale may make it rather easy for people with avocational interests in this area to score high." A perusal of the items making up the artistic key reveals that interest in "developing new varieties of flowers" and "desire to be a landscape gardener" go into making up the artistic score. This may account in part at least for the difference in scores of nonmigrant and migrant farm boys in artistic interest.

DIFFERENCES CONSISTENTLY "FAVORING" MIGRANTS OR NONMIGRANTS

Besides the statistically significant findings reported above, it is interesting, and perhaps of some importance, that on some of the indices of adjustment the scores in all cases were more "favorable" for the group that did not migrate. There appears to be a pattern of better adjustment to home community in all cases for the nonmigrants, in that they report stronger feelings of belonging and better adjustment to family, community, and the prevailing social standards (Table 3).

On the other hand, the migrating students were consistently more aggressive socially, as measured by the Bell Inventory and by the record of high-school extra-curricular participation. They also had consistently higher high-school grades and reported

[16] O. K. Buros (ed.), *The Third Mental Measurement Yearbook* (New Brunswick, N. J.: Rutgers University Press, 1949), p. 663.

TABLE 3. t-VALUES "FAVORING" NONMIGRANTS

Index of personality adjustment	Girls		Boys	
	Nonfarm	Farm	Nonfarm	Farm
Bell Adjustment Inventory:				
Home adjustment	1.24	1.01	.13	1.69
California Test of Personality:				
Self adjustment[1]				
Feeling of belonging	.73	.14	1.15	1.45
Social adjustment	1.37	1.19	.34	.78
Social standards	1.06	.91	.68	.33
Family relations	1.34	1.69	.08	2.28
Community relations	.76	1.11	.29	2.56

[1] Total scores for self adjustment did not consistently favor nonmigrants, although the scores for the one subtest did.

TABLE 4. t-VALUES "FAVORING" MIGRANTS

Index of personality adjustment	Girls		Boys	
	Nonfarm	Farm	Nonfarm	Farm
Bell Adjustment Inventory:				
Social adjustment	2.23	2.79	.57	1.42
High-school grades	.05	1.64	3.49	3.02
High-school extra-curricular participation	.19	4.76	3.59	3.45
Kuder Preference Record:				
Scientific interest	1.03	1.44	3.79	1.56
Literary interest	1.74	1.01	1.30	2.72

greater interest in scientific and literary pursuits (Table 4). In general, then, it would appear that the migrants were less well adjusted to family and community and better adjusted to the life of the high school, a symbol of what the world outside the local rural community has to offer—academic, scientific, and literary pursuits.

SUGGESTIONS FOR FURTHER RESEARCH

The use of an *ex post facto* type of experimental design[17] in the present study was made necessary by the nature of the data utilized. Since the attempt was to investigate causes in the past of an event (migration) in the present, historical records, with their limitations, had to be used as the source of data on variables to be controlled as well as on the cause variable. It is generally true that, the data permitting, a projected design[18] affords a better opportunity for careful control of other independent variables as well as greater opportunity to select proper measures of the cause variable. A research design geared to an "on-the-spot" analysis of the causal situation preceding migration would permit the use of a combination of statistical and case study methods. For example, only 1 of the 31 personality differences between nonfarm girls, in the study here reported, was at a level of statistical significance. One might well ask what pulls or pressures came to bear on the migrants that did not come to bear on the nonmigrants—such as job offers, scholarship grants for further education, and marriage proposals. Pulls and pressures do not show up in the

[17] Chapin, *op. cit.*, p. 33.

[18] *Ibid.*, p. 32.

"static" data of the present study. Also, did the migrants have some grievances against the home community that did not show up in the adjustment data, or that came to bear after the self-report inventories had been administered? Did the migrants have goals different from those of the nonmigrants? (Some of the differences on the Kuder Preference Record would suggest this.)

A study of the adjustment of the migrants after migrating would throw some light on the latter question. Did the migrants adjust satisfactorily in the new environment? Or was this but the first of a series of moves? For how many was this a temporary move followed by a return to the home community, with a subsequent satisfactory adjustment? These are but a few questions suggestive of hypotheses for further research.

DEFINITIONS OF COMMUNITY: AREAS OF AGREEMENT*

by George A. Hillery, Jr.†

ABSTRACT

The task of the paper is to ascertain the extent of agreement among definitions of community. Ninety-four definitions are classified by content and subjected to qualitative and quantitative analysis. Emphasis is placed on the number of different definitions which have been advanced rather than the frequency with which the definitions have been used. The variation is seen to be wide. Sixteen different concepts were employed by the definers, and at least two authors could always be found who have presented conflicting definitions. Most students, however, are in basic agreement that community consists of persons in social interaction within a geographic area and having one or more additional common ties. Students of the rural community whose definitions are analyzed are found to be unanimous in claiming this formulation as a minimum requisite.

It is characteristic of any discipline that its members are not always able to agree on the nature of the phenomena they examine. This lack of agreement is especially reflected in the formulation of abstractions, including concepts and definitions. Among sociologists who focus their study on community, concepts have attained such a degree of heterogeneity that it is difficult to determine whether any one of the resulting definitions, or even any one group of definitions, affords an adequate description. To the extent that the degree of consensus is in doubt, to that extent must one remain uncertain whether different things are being described or whether the same thing is merely being viewed from different vantage points. Accordingly, there is presented here an analysis of definitions of the community (or, of community) in an effort to determine whether areas of agreement or common ground exist, and if so, what they are.

*The writer wishes to express his appreciation to Homer L. Hitt for his counsel in the preparation of this paper. The research was undertaken as a project of the Institute of Population Research, Department of Sociology, Louisiana State University.

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PREVIOUS CLASSIFICATIONS

Several authors have preceded the writer in seeking to find order among the plethora of descriptions. Hollingshead has furnished one of the latest classifications.[1] He groups definitions of community into three categories—group solidarity, geographic area, and socio-geographic structure (which combines the ideas in the first two categories)—and concludes that community cannot be all three. However, Hollingshead was simply presenting a summary description, and his only

[1] August B. Hollingshead, "Community Research: Development and Present Condition," *American Sociological Review*, XIII (1948), p. 145. *Cf.* also Albert J. Reiss, Jr., "A Review and Evaluation of Research on Community," a working memorandum prepared for the Committee on Social Behavior of the Social Science Research Council (mimeo.; Nashville, Tenn., April 20, 1954). Though specifically not focusing on definitions, this work represents one of the most noteworthy attempts to clarify the meaning of community which has come to the writer's attention. Reiss' main purpose is to suggest types of weaknesses in current community research and, where possible, plans to correct them. His report differs from the present one primarily in being macroscopic rather than microscopic. Here, only one segment of community research is placed under analysis, a segment which Reiss chose to develop no more than minimally.

purpose in advancing the "classification" was to indicate that areas of disagreement must logically exist. Thus, he understandably gives no picture of the *extent* of similarities and differences.

Somewhat more documentary work has been done by Gillette,[2] although more than twenty years earlier than Hollingshead. But beyond stating that various definitions of the community coincide with society, city, village, and neighborhood, no attempt was made to furnish the reader with the content of the definitions. The description of McClenahan[3] approaches that of this report more closely than those of the other two. She classifies the community according to six points of view: (*1*) as a social unit in a local territory; (*2*) as an ecological unit; (*3*) as a legal, administrative, or political unit; (*4*) as the equivalent of society; (*5*) as an ideal, or mental unity; and (*6*) as a process. The reader, however, is presented with two difficulties. First, some of McClenahan's classes fail to be mutually exclusive. Notice for example that community as the "equivalent of society" could well have been placed as the larger category, with community as a "social unit" appearing within it. At any rate, by subclassification, McClenahan could have achieved a greater degree of mutually exclusive classification. Second, McClenahan's classification, though fairly accurate, does not tell one enough of the degree of variation which does exist.[4]

The present report attempts to fill in the details, both by furnishing a more detailed classification and by providing a larger number of definitions from which conclusions may be drawn. To do justice to the latter two authors, however, it should be noted that McClenahan's work appeared in 1929 and that of Gillette three years earlier. Their efforts may justifiably be classed as pioneering. Nearly half of the definitions collected in this paper appeared after 1930 and, of course, could not have been considered by either author.

PROCEDURE AND QUALIFICATIONS

The 94 definitions used in this analysis are not all of the definitions of the community. However, it is believed that the picture given is a fairly representative one, as is indicated by the method of obtaining the definitions. Beginning with a few definitions already known, the writer traced the references given by these authors, referred in turn to the sources furnished by these references, and so on, collecting the definitions in the various works as the search progressed.[5] As a supplementary procedure, to decrease the possibility of limiting the definitions to any "school" or "schools," all of the promising titles on the library shelves adjacent to those works already located were checked in the same manner. When no further references could be obtained by this method, the search was halted. Thus, the coverage given is wide, but no measure is available as to *how* wide; the author may only claim more conclusiveness than has hitherto been available, not finality.

If most of the definitions that have been written are in this paper, they do

[2] John M. Gillette, "Community Concepts," *Social Forces*, IV (1926), p. 678.

[3] Bessie A. McClenahan, *The Changing Urban Neighborhood: From Neighbor to Neigh-Dweller—A Sociological Study*, University of Southern California Studies, Social Science Series, No. 1 (Los Angeles: University of Southern California, 1929), pp. 104-106.

[4] McClenahan lists a total of eight authors in her classification: C. C. North, R. M. MacIver, H. W. Zorbaugh, R. D. McKenzie, Morris Ginsberg, Dwight Sanderson, and M. P. Follett.

[5] The initial works used were R. M. MacIver and Charles H. Page, *Society: An Introductory Analysis* (New York: Rinehart & Co., 1949), pp. 8-10; and Carle C. Zimmerman, *The Changing Community* (New York: Harper & Bros., 1938), pp. 15-16, 69-70.

not necessarily embrace all concepts of the community. Often the writer had to discard works because no clear formulation of a definition of community could be obtained from them—even though their subject matter was the community.[6] Only explicit statements were sought. Also, no attempt was made to weight each individual definition according to its proportional use. Emphasis is on different definitions rather than on the number of times any one definition has been used by different authors. The delimitation in this consideration is arbitrary, and the reader should modify his evaluation accordingly.

Probably one aspect of the classification which needs most emphasis is its descriptive nature. The categories, and especially their organization, have the sole purpose of reflecting abstractly the content of the definitions. Since they are intended to do no more than describe, the nature of the categories depends wholly on the nature of the definitions, not *vice versa*. No attempt was made to erect a set of classes and *then* attempt to fit the definitions to them. The technique used to construct the classification could be described as a process of inspection and combination. First, each of the 94 definitions was examined (inspected) to discern the number and kind of ideas it contained. In all, sixteen different concepts were abstracted from the definitions. The same idea was often mentioned in more than one definition, and more than one idea often occurred in the same definition. The names given to the ideas are presented in Table 1. They are described in more detail below.

Each definition was then typed according to the number and kind of ideas it contained. Thus, a definition which mentioned both social interaction and the presence of a geographic area and further described the community as having individuality fell into a class different from that which specified only social interaction and individuality, or that which made no more of a specification than that the community is a locality group (which would amount to the combination of the elements of social interaction and geographic area). Twenty-two combinations of the 16 ideas were found; these are the classes and subclasses in Table 1. The following discussion of the classification scheme should clarify the ideas and terms and indicate their interrelationships; for each idea does not exist in a vacuum.[7]

THE CLASSIFICATION

The broadest classification in Table 1 is the dichotomy, *generic* and *rural* definitions. The definitions of "rural communities" presented an initial problem, in that not *the* community but a type of community was being consid-

[6] For examples of such works, cf. Joanna Colcord, *Your Community* (New York: Russell Sage Foundation, 1941); Oscar W. Junek, *Isolated Communities* (New York: American Book Co., 1937); J. St. Lewinski, *Origin of Property and the Formation of the Village Community* (London: Constable & Co., 1913); Frank Tannenbaum, *Crime and the Community* (Boston: Ginn & Co., 1938); E. L. Thorndike, *144 Smaller Cities* (New York: Harcourt Brace & Co., 1940); Wilber M. Urban, "The Nature of the Community," *Philosophical Review*, Bull. 168 (1919), pp. 547-561; Louis Wirth, "Urban Communities," *The American Journal of Sociology*, XLVII (1942). Only a small portion of all the works of this nature which were encountered in the survey are included in this footnote.

[7] The possibility exists that community could be all 16 different ideas represented in the definitions, on the assumption that the definers were examining community from different points of view. Undoubtedly, at times such is the case (e.g., community as social interaction and ecological relationships). Whether this explanation is the basis for all definition differences, however, is not so readily apparent. The question is a crucial one for students of community, but nonetheless is outside the scope of this paper. Here, the definitions are taken as given, as subjects for analysis in themselves.

TABLE 1. A CLASSIFICATION OF SELECTED DEFINITIONS OF COMMUNITY ACCORDING TO CONTENT

Distinguishing ideas or elements mentioned in the definitions*	Number of definitions	Authors**
I. *Generic Community:*		
A. Social interaction		
1. Geographic area		
a. Self-sufficiency	8	Wilson; Hobhouse, Wheeler, & Ginsberg; Sanderson; Zimmerman; Fairchild; Davis; Landis; Hawley
b. Common life	9	MacIver and MacIver & Page; Morse; Park & Burgess; Kinneman; Snedden; McClenahan; Zorbaugh; Wirth; J. Bernard
(1) Kinship	2	Tönnies; Heberle
c. Consciousness of kind	7	Jackson; Gillette; Brunner; Lindeman; Cook; Nelson; Anderson & Hill
d. Possession of common ends, norms, means	20	Ward; Hieronymus; North; Dunn; Pirenne; Lundquist & Carver; Wood; Lundquist & Moore; Burr; Steiner; North; Osburn & Neumeyer; Gettys; Ginsberg; Panunzio; Hoffsommer & Pryor; Homans; Hiller; Bennett & Tumin; Hillman
e. Collection of institutions	2	Park; Ogburn & Nimkoff
f. Locality group	5	Galpin; Burgess; Rich; Sanders & Ensminger; Warner
g. Individuality	2	Howe; McKenzie
2. Presence of some common characteristic, other than area		
a. Self-sufficiency	1	Butterfield
b. Common life	3	Small; Sims; Park
c. Consciousness of kind	5	Cooley; Cole; Diffendorfer; Allport; Hayes
d. Possession of common ends, norms, means	5	Russell; Pettit; Panunzio; Morgan; J. & J. Ogden
3. Social system	1	Hill & Whiting
4. Individuality	3	Hart; Liao; Bews
5. Totality of attitudes	1	Fairchild
6. Process	2	Follett; Case
B. Ecological Relationships	3	McKenzie; Hughes; Hollingshead
II. *Rural Community:*		
A. Social Interaction		
1. Geographic area		
a. Self-sufficiency	1	Gillette

*Descriptions of the definitions' content are to be read by combining all categories specified under each roman numeral. Thus, MacIver and Page's definition contains the following ideas: generic community, social interaction, geographic area, and common life. Cooley's definition contains the ideas of generic community, social interaction, and the presence of some common characteristic other than area—namely, consciousness of kind.

**For bibliographic references to authors, see bibliography at the end of this article.

[Table continued on next page]

TABLE 1 (Continued). A CLASSIFICATION OF SELECTED DEFINITIONS OF COMMUNITY ACCORDING TO CONTENT

Distinguishing ideas or elements mentioned in the definitions*	Number of definitions	Authors**
b. Common life	3	Henderson; McClenahan; Sorokin, Zimmerman, & Galpin
c. Consciousness of kind	3	Thompson; Ensminger; T. L. Smith
d. Possession of common ends, norms, means	3	Burr; Lantis; Sanderson
e. Locality group	5	Wilson; Galpin; Vogt; Sanderson; Kolb & Marshall
Total Definitions	94	

*Descriptions of the definitions' content are to be read by combining all categories specified under each roman numeral. Thus, MacIver and Page's definition contains the following ideas: generic community, social interaction, geographic area, and common life. Cooley's definition contains the ideas of generic community, social interaction, and the presence of some common characteristic other than area—namely, consciousness of kind.

**For bibliographic references to authors, see bibliography at end of this article.

ered. Nevertheless, the attempt was to delimit characteristics of community life, and these definitions were relevant. The compromise solution was a separate classification of the definitions of the "rural community." Except for omitting some of the categories, the classification of the definitions of "rural community" duplicates that for the community in general.

All except three of the definitions clearly mention the presence of a group of people, i.e., persons in social interaction. Since the three exceptions all have an ecological orientation, another dichotomy is apparent: definitions which specify *social interaction* as a necessary element of the community and those which emphasize the community as *ecological relationships.*

The definitions which include social interaction fall into six categories: those which mention the presence of some *geographic area,* those which mention the *presence of some common characteristic other than area,* and four residual categories (discussed below).

Not all the definitions mentioning geographic area imply that the most important component of a community is its territorial limits (though some do); the fact that areal limitations explicitly enter into these definitions was considered a sufficient basis for grouping them. Seven subclasses of definitions include both the element of social interaction and that of geographic area: (*1*) Some describe the essential element of the community as that of *self-sufficiency.* (*2*) *Common life* is the key concept in the next group. In certain respects this idea is as inclusive as is the conception of a group sufficient unto itself. Indeed, a self-sufficient group *is* an area of common life; but communities described as an area of common life are not prohibited from being part of a larger group, whereas a self-sufficient group logically cannot function as such a cog. The definitions of Tönnies[8] and Heberle form a subclass of this category. Both authors list *kinship* as a necessary addition to territorially localized social interaction. Further, both authors mention the presence of a commonness (unity) of belief and work, which in the present terminology can be translated into a common life. (*3*) Common to all of the definitions labeled *consciousness of kind* is the phenomenon of a population conscious of its homo-

[8] Bibliographical references are at the end of this paper, unless otherwise cited.

geneity in at least certain aspects.[9] (4) The class of definitions stressing community as the possession of *common ends, means,* or *norms* is closely related to the two previously mentioned. The distinctive features, however, are: first, the less inclusive nature of the present class in comparison to the sweeping coverage afforded by the possession of a common life; second, the fact that ends, norms, and/or means can be possessed in common and yet the realization of that common possession be lacking. Some definitions use all three elements (ends, norms, and means), whereas others employ fewer. (5) Admittedly, those who share a *collection of institutions* will also share common means and norms (though not necessarily common ends). The specification of a collection of institutions, however, qualitatively differentiates this type of definition from the ones preceding. In the former class, if norms are mentioned, they are designated only as such, i.e., with no mention as to their organization. With Park and with Ogburn and Nimkoff, however, the organization of the norms—i.e., the institutions—becomes the crucial factor. (6) The previous definitions mention the presence of a geographic area in addition to some other characteristic. The definitions in the class designated *locality group* place a heavy emphasis (if not an exclusive one) on the feature of localism. In other words, the essential feature of the community is that it is a locality group, regardless of what else it may be. (7) The chief factor in this class of definitions is the community as an *individuality,* either in the sense of an entity or something more than simply the sum of its parts.

All of the remaining classes which may be grouped under "social interaction" have one factor in common: They contain no mention of area or locality. One group of definitions previously referred to, however, mentions the *presence of some common characteristic other than area,* whether that "something" is self-sufficiency, social life, consciousness of kind, or ends, norms, and means. The other classes are in the nature of residual categories. As with the preceding one, they contain no mention of area. However, neither can their chief concept be categorized as referring to something in common. Thus, Hill and Whiting define the community as a *social system,* which they in turn describe as an organization of interconnected culture bearers. Community as *individuality* refers to the same concept as listed under geographic area (although here, of course, no mention is made of area). One of the definitions listed by the *Dictionary of Sociology*[10] delineated community as the *totality of* feelings and *attitudes* that bind individuals together. Community defined as a *process* stems from the efforts of Mary Parker Follett. Just what empirical referents (other than social interaction) are to be linked to this process is not made clear by the respective authors.

A particularly troublesome problem that arose during the task of classification was concerned with the attempt to group definitions which could be placed in several categories; for an effort was made to construct classes which would be mutually exclusive. The procedure followed in all cases in which definitions could be placed clearly in either of two categories was to choose as descriptive of the definition the one of the two classes which was theoretically the more inclusive—i.e., which would be expected to contain in it the quality represented by the less inclusive category. Thus, a definition that stressed an area of common life but also specified common ends, norms,

[9] The writer could not discover through the sampling technique employed a definition by Giddings which utilized this concept.

[10] See H. P. Fairchild in the bibliography at the end of the article.

and means would be placed in the former category, since common life presupposes common ends, norms, and means. The classic example in this regard is found in MacIver and Page's definition:

> Wherever the members of any group, small or large, live together in such a way that they share, not this or that particular interest, but the basic conditions of a common life, we call that group a community. The mark of a community is that one's life *may* be lived wholly within it.
>
> . . . . . .
>
> A community . . . is an area of common living. There must be the common living with its *awareness* of sharing a way of life as well as the common earth.

Similarly, a group with consciousness of kind would also have members who possessed similar ends, means, or norms, although the reverse would not necessarily be true. Lowry Nelson's definition provides an example:

> In general, the term *community* refers to a group of people inhabiting a limited area, who have a sense of belonging together and who through their organized relationships share and carry on activities in pursuit of their common interests.

This definition clearly belongs in two categories. That of consciousness of kind, however, is more inclusive, and thus governs the placing. It is in the sense of belonging together that the common means are employed for the attainment of common ends. By Nelson's organization, one may see that this second element would not exist without the presence of a recognition of commonness.

There is no claim advanced for homogeneity of classes—such an approach would have yielded one "class" for each definition. Nor was the approach Procrustean. Doubtless Procrusteanism has arisen at various points (no matter how unintentional), but the product striven for was the construction of a classification that would best describe the definitions at hand. The only safeguard that could be utilized in this respect was a strict prohibition against discarding any definitions. If they would not "fit," then a separate class was created — though that class might have only one occupant.

EXTENT OF DISAGREEMENT

As should be obvious from the classification scheme in Table 1, all of the definitions cannot be correct—i.e., community cannot be all of the definitions in their entirety. For example, the logical principle of contradiction denies anything the quality of being an area and not being an area. The findings in this respect merely substantiate the conclusions drawn by Hollingshead.[11] But it is significant that no author encountered in the survey denied that area could be an element of community. This statement will have an important bearing on the conclusions.

There is one element, however, which can be found in all of the concepts, and (if its mention seems obvious) it is specified merely to facilitate a positive delineation of the degree of heterogeneity: all of the definitions deal with people. Beyond this common basis, there is no agreement. To be sure, people who are grouped together will normally engage to some extent in social interaction, but definitions were found (in the class termed "Ecological Relationships") which deny social interaction as an essential feature of community life. Two authors (Hughes and Hollingshead) claim that community is analytically separable from social interaction, that community is to be found primarily in relationships that people have with space. That these definitions are atypical is, though important, of no concern here. The feature to be noted at this point is the absence of agreement beyond the fact that community involves people.

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[11] *Op. cit.*, p. 145.

But, in at least one respect, the fact that the two definitions mentioned above are atypical is of importance. Notice that not all ecologists (e.g., the definitions given by McKenzie, Hawley, and Bews) have definitely excluded social interaction from consideration as an aspect of community. It cannot be said, then, that ecology *per se* dichotomizes human aggregates into society and community, but only that certain ecologists do so. Since these are the only definitions in this survey which exclude social interaction from the concept of community, and since social interaction is at least one major concern of all of the other definitions, these two must be considered the most radical deviants.

EXTENT AND AREAS OF AGREEMENT

Of the 94 definitions, 69 are in accord that social interaction, area, and a common tie or ties are commonly found in community life.[12] Seventy, or almost three-fourths, mention area and social interaction as necessary elements of community. Even with the rural definitions excluded (some may claim a bias is introduced if they are not) the proportion drops only slightly, to 54 out of a total of 78 definitions; i.e., slightly more than two-thirds of the definitions maintain that social interaction and area are to be considered in studying the community.

If the concept of area is omitted from consideration, the importance of interaction and common ties appearing jointly only increases. One finds 73 of the 94 definitions (or, excluding the rural formulations, 62 of the 78)—more than three-fourths—in which the community is considered a group of people in social interaction having some ties or bonds in common.[13] Finally, all but three of the definitions stress social interaction as a necessary element in community life.

Thus, a majority of the definitions include the following as important elements of the community: area, common ties, and social interaction (in increasing importance for each separate element, respectively). With the exception of the deviant ecologists mentioned earlier, *all* of the authors would allow these three elements to be included in a definition of the community (whether or not they are all of the elements, or whether or not they are the most important ones). Some authors may not mention area or common ties in their definitions, but they do not exclude either from consideration. Thus, in claiming that area, for example, is not necessary for community (which some authors do), no claim is made that a group which *is* in a specific area *cannot* be a community. If such a group meets, in addition, those other conditions which are specified by the author(s) as being necessary for community, then such a group can be a community—even in the terminology of these authors. The element of common ties is similarly not excluded from consideration. Incidentally, some authors clearly state that a community must be more than area, social interaction, and common ties,[14] but that to have this much is at least permissible (if not mandatory).

On the principal issues with which this paper has been concerned, the definitions of the rural community are largely in agreement with the generic definitions. All of the authors defining the rural community claim that it is an area of social interaction, and if a locality group is assumed to be in itself

[12] Definitions I:A:1:a-f, under "Generic Community," and all definitions of "Rural Community." Cf. outline in Table 1.

[13] To arrive at these figures, only those classes of locality group, individuality, social system, process, and ecological relationships need be omitted. True, some of the definitions even in these classes could be included—but avoiding them will also be avoiding the conjectural.

[14] E.g., Sorokin, Zimmerman, and Galpin.

capable of furnishing a common bond, then all agree also that the community is at least an area in which the people engage in social interaction and have one or more common ties or bonds. The agreement, then, forms a rather hard core from which the variations depart. These variations may be viewed as in the nature of additional suggestions which have not been completely accepted by students of rural society.

One reason which may be suggested for the similarity is that these students of rural life have all been describing rural groups that have steady contact with the soil (thus with area), and whose members usually possess several common ties and are certainly in social interaction. It may be that the rural sociologists have somehow been closer to the actual core of the community concept, and that community is perhaps a phenomenon more easily recognized in rural areas. Urban communities are larger social units, and this largeness is particularly marked by the presence of secondary groups and a greater heterogeneity of groups. There is more complexity and thus more to see (i.e., when attempting to conceptualize). This diversity and abundance of social relationships could well obscure the fundamental basis upon which community rests. Of course, some rural sociologists have claimed that community is peculiarly limited to rural areas,[15] but the discussion on this level is perhaps a matter of definition, and the present paper has been devoted to what was found to be some measure of common agreement among students of the community in general.

[15] Sorokin, Zimmerman, and Galpin would have their "cumulative community," by definition, limited to rural areas. (*Cf.* Sorokin, Zimmerman, and Galpin, *op. cit.*, p. 321.) Sanderson would reserve the term even more completely to rural life: "Certainly the large metropolitan city is no more a community than is a county or a state . . . the community is a natural social division of rural life . . . ." [Dwight Sanderson, "Democracy and Community Organization," *Publications of the American Sociological Society*, XV (1919), p. 85.]

SUMMARY AND CONCLUSIONS

The following summary generalizations may be made:

(*1*) When all of the definitions are viewed, beyond the concept that people are involved in community, there is no complete agreement as to the nature of community.

(*2*) The most radical deviants in formulating concepts of the community have been certain ecologists.

(*3*) With the class of definitions concerned with ecological relationships excluded, the remaining authors agree that the concept of community is to be found within the broader concept of social interaction (either with or without area) and, furthermore, that an area of common ties and social interaction can be present in a community (though some authors prescribe additional and limiting factors), no matter how many other types of groups and phenomena are also community.

(*4*) Finally, those students who have formulated definitions of the rural community have been more consistent in describing the bases of their concepts than have the students of the community in general; all of the definitions reviewed were found to portray the rural community at least as an area in which social interaction and one or more common bonds are to be found.

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THE ROLE OF AGRICULTURE IN RETIREMENT ADJUSTMENT: A STUDY IN FIVE FLORIDA COUNTIES*

by Daniel E. Allegert†

ABSTRACT

Between 1900 and 1950, the population of the United States doubled, but during this same period the proportion of persons over 64 years of age quadrupled. In all states, aging has created problems which are becoming increasingly pressing. The Social Security program is designed to cope with certain income, health, and welfare issues; but the problem of personal adjustment in retirement is largely an individual matter.

Agricultural census data indicate that many older people have retired on the land. Currently, more than 400,000 persons reach retirement age annually. Presumably many of these people plan for rural retirement. This paper examines the question of whether adjustment of retired persons is achieved in agriculture, especially under conditions as found in Florida. It is concluded that agriculture provides economic and cultural advantages for retirees, but that factors associated with constant aging tend to weaken these values, at least as related to open-country retirement.

Retirement on any large scale was something unknown in American history before the passage of the Social Security Act, in 1935. Today retirement is commonplace. While many retirees are concerned about the possible inadequacy of their retirement incomes, they are equally disturbed about how to use their new-found leisure. Some of them seek security and adjustment in retirement farming rather than in city activities. This way of life may not actually be the easiest and best, but to many people it has deep-rooted sentimental values.

PRESENT SITUATION AND PROBLEM

In the United States, in 1950, about 1,029,000 families lived on residential farms and secured the principal part of their livelihood from nonfarm sources. More than 20 per cent of these farms were operated by family heads who were 65 years of age or over. In the comparatively near future, thousands of other older people may use agriculture for adjusting to retirement. The number of persons reaching retirement age is increasing by about 400,000 annually.[1]

People generally are not content to remain completely idle after retirement. The problem facing retirees is how to utilize their retirement leisure. Few gainful occupational opportunities are open to them, particularly of the type in which they may regulate the tempo and extent of their daily work. Very frequently the retirement farm appears best able to provide these opportunities.[2] In the warmer areas of the United States—as in Florida, with which this paper deals—the possibilities for daily outdoor activity provided by retirement farming are almost unlimited.

This subject is of especial interest to Floridians because of the large number

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[1] Federal Security Agency, Committee on Aging and Geriatrics, *Fact Book on Aging* (Washington, D. C., 1952), p. 1.

[2] A retirement farm was defined as any rural land used for agricultural purposes by a retiree who resided on the land he owned or occupied. A retirement farmer or "retiree" was the active head of a household, who engaged in small-scale farming in the open country and who personally rated himself or herself as a retired person.

of older persons migrating to the state.[3] While old-age migration stimulates economic growth in some areas of the state, it also raises the issue of possible increased public-welfare costs. For these and other reasons, public thinking and planning in Florida are strongly focused on opportunities for, and problems of, retirees.[4] Among the questions posed by the former Citizens Committee on Retirement in Florida was, "Do retirees desire or need part-time employment; if so, what kind is suited to their needs?"[5] In 1952, field research in Florida was undertaken to answer this inquiry with respect to its relation to agriculture.[6]

HYPOTHESIS AND OBJECTIVE

The hypothesis for the study was *that when retirement incomes are too low to provide an adequate standard of living, the level of living of retirees can be improved through retirement farming.*[7] Consequently, full-time farm operators who organized their agricultural enterprises for economic gain, and retirees with over $500 monthly cash retirement income, were excluded from consideration in this study. Some of the older farmers excluded were reducing their scale of operations because of advanced age, but had not definitely "retired." The objective decided upon was to determine (*1*) the contributions of retirement farming to the welfare of the retired people, and (*2*) how factors such as retirement income, age, and disability affect net farm earnings and attitudes toward farming.

METHOD OF STUDY

The study was designed to provide information about dispersed rural farm retirement of both whites and Negroes in three climatic zones of Florida. The universe of study was finite and limited to retirement farmers in five Florida counties. They were Marion and Putnam counties in the northern part of the state, Hillsborough and Pinellas counties in the central part, and Lee County in the southern part.

Homes of rural-farm and rural-nonfarm residents are widely distributed throughout the farming areas in Hillsborough County (Tampa area), as shown on official state road maps. It was assumed that retirement-farm homes would be randomly distributed among all rural-farm homes in the county, and that generalization about the universe would be possible from samples, or small numbers of observations. For this county, a sample based on the Master Sample design of the United States Department of Agriculture and the Bureau of the Census was used.[8] A 25-per-cent systematic sample with a random starting point produced 117 segments, or clusters, with five farms each. In Marion and Putnam counties (Ocala and Palatka areas) the sampling units were accessible square-

[3] Of the 237,500 persons 65 years of age or older in Florida, in 1950, about 95,000 had migrated to the state during the 1940-1950 decade. See T. Lynn Smith (ed.), *Living in the Later Years* (Gainesville, Fla.: University of Florida Press, 1952), chap. by T. Stanton Dietrich, "Problems That Need Further Study," p. 32.

[4] Since 1951, the Institute of Gerontology, at the University of Florida, has sponsored annual conferences relating to the problems of the aged.

[5] The Citizens Committee on Retirement in Florida was created by proclamation of former Governor Fuller Warren, on October 6, 1950. It remained active until the end of his administration and was advisory in nature.

[6] A research bulletin relating to the role of agriculture in retirement adjustment is being prepared by the writer for publication at the Florida Agricultural Experiment Station.

[7] See Fred R. Marti, "Retirement Farming in Hillsborough County, Florida" (Ph.D. dissertation, University of Florida, Gainesville, 1954), p. 40.

[8] Master Sample maps were loaned by the Bureau of Agricultural Economics, USDA, to the University of Florida's Statistical Laboratory for use in designing the sample.

mile units in which at least one rural home was shown on state highway maps. A 20-per-cent stratified random sample yielded 174 square-mile areas. In Lee County, dispersed rural homesteads were comparatively few in number; and in Pinellas County, rural residential subdivisions were extensive. Accordingly, all retirement farmers located in these two counties outside urban and suburban developments were interviewed.

The retirement-farm head of household was the primary source of data. A somewhat lengthy schedule was completed in the presence of the informant. It related to the personal background, family characteristics, retirement incomes, living needs, socio-economic status, farm operational data, and personal attitudes toward rural retirement. Income data were obtained last, after rapport and confidence had been established. As a rule, the sequence of the questions was such as to avoid rapid transitions in thought. The unsolicited responses of retirees frequently provided insight into retirement problems which otherwise might not have been discovered.

Altogether, about 200 case records were taken, of which 175 were retained for analysis after editing was completed. There were 22 Negro households and 153 white households. Twenty family heads were women. On the basis of estimates derived from the expansion of the samples, about 900 retirement farmers were living in the open country in the universe of study at the time of the survey.

MOTIVES FOR RETIREMENT FARMING

The study indicated that retirement farmers normally have a different set of values (desires or incentives) from commercial farmers. Among commercial farmers, the desire for money stands out as the main reason for farming, and only economic values are directly measurable. "Rational" individuals often treasure direct satisfactions which to them seem equally as important as monetary returns. However, subjective values (leisure, mental satisfactions, recreation, etc.) are not directly measurable. But if monetary and non-monetary values were measurable in comparable terms, the sum of tangible and intangible values would more clearly indicate the extent to which maximum satisfactions were attainable. Still, these maxima would be different for different persons, as well as different for the same person at different periods of time. In spite of human inconsistencies, however, personal likes and dislikes are important factors impelling men to action. The more an operator values intangible items, the less likely he is to operate his farm business at maximum economic efficiency, although he may be attempting to maximize total returns.

The findings supported the hypothesis that retirement farming contributes to the welfare of retired people. Average net farm earnings were $212 for the schedule year.[9] In addition, retirees secured rewards from farming in the form of personal satisfactions. When retired people became absorbed in and satisfied with their farming achievements, their personal adjustment to retirement was facilitated. Some persons attained this goal through backyard fruit experimentation or similar farm hobbies, and often when cash outlays exceeded economic returns.

[9] As used herein, the sum of cash farm income plus value of items produced and used by the farm family and inventory increases (excluding real estate) less cash expenses for farming and inventory decreases (excluding real estate) is net farm earnings. All family labor was regarded as no-cost labor; and no charges were made for interest on investments.

The schedule year for Hillsborough County was the period July 1, 1951–June 30, 1952; for Marion and Putnam counties, the 1952 calendar year; and for Lee and Pinellas counties, July 1, 1952–June 30, 1953.

TABLE 1. DISTRIBUTION OF RETIREES BY PRINCIPAL TYPE OF INCOME AND NUMBER OF INCOME SOURCES, TOGETHER WITH AVERAGE ANNUAL INCOME OF THOSE GETTING THEIR PRINCIPAL INCOME FROM EACH SOURCE, FIVE FLORIDA COUNTIES, 1951-1953

(Income refers here to "retirement income" and excludes income from farming)

Type of income	Retirees getting principal income from each source*		Average annual income of each group	Retirees having specified numbers of income sources in addition to principal one*			
				None	One	Two	Three
	Number	*Per cent*	*Dollars*	*Number of retirees*			
State government payments:	*72*	*43.6*	*$ 739*	*45*	*19*	*7*	*1*
Old Age Assistance	64	38.8	703	43	15	6	.....
Welfare, except old age	7	4.2	1,063	1	4	1	1
Teacher's retirement	1	0.6	804	1	.....	.....	.....
Federal government payments:	*58*	*35.2*	*1,276*	*32*	*22*	*4*	.....
Social Security	26	15.8	926	13	11	2	.....
Armed services, pensions	12	7.3	2,309	5	5	2	.....
Armed services, disability	8	4.9	809	6	2	.....	.....
Armed services, unclassified	4	2.4	877	2	2	.....	.....
U. S. Civil Service	4	2.4	1,269	3	1	.....	.....
Railroad retirement**	3	1.8	1,623	3	.....	.....	.....
Armed services, insurance	1	0.6	2,304	.....	1	.....	.....
Investments:	*12*	*7.3*	*944*	*7*	*4*	*1*	.....
Rents and royalties	8	4.9	1,053	5	3	.....	.....
Interest and dividends	3	1.8	867	1	1	1	.....
Not specified	1	0.6	300	1	.....	.....	.....
Part-time employment:	*7*	*4.2*	*1,345*	*4*	*1*	*2*	.....
Wife of family head	3	1.8	1,991	2	.....	1	.....
Family head	2	1.2	172	1	1	.....	.....
Keeping roomers, boarders, etc.	2	1.2	1,549	1	.....	1	.....
No retirement income:	*7*	*4.2*	.....	*7*	.....	.....	.....
Miscellaneous income:	*9*	*5.5*	*1,411*	*7*	*2*	.....	.....
Gifts from relatives	4	2.4	915	4	.....	.....	.....
Municipal pensions	2	1.2	1,685	1	1	.....	.....
Corporation pensions	2	1.2	1,685	1	1	.....	.....
Unclassified disability	1	0.6	2,300	1	.....	.....	.....
All	165	100.0	$ 974	102	48	14	1

*Ten retirees with unknown income excluded.

**Employment records transferred from Railroad Retirement Board to Social Security Board at death or retirement of employee, subject to exceptions.

There were no clearly defined distinctions between economic and subjective values, because one influenced the other; yet the research workers were generally able to classify the reasons retirees gave for farming as primarily reflecting one or the other kind of value. For example, reasons such as "increase my income" or "produce food for the table" were classified as economic. Similarly, such reasons as "to be free and independent," "to keep busy," or "to keep mind and body occupied" were ranked as subjective. On this basis, 57 per cent of the retirement farmers were classed as advancing economic motives, and 29 per cent as giving "subjective" explanations as reasons for farming. The remainder (14 per cent) could not be classified in this way.

RETIREMENT INCOMES

Approximately 44 per cent of the retired family heads interviewed re-

ceived their principal income from the state, largely in the form of old age assistance, and slightly more than 35 per cent were principally supported by income from federal government sources (Table 1). Thus, about 79 per cent of all the retirees received their principal incomes from the federal or state governments. Two-fifths (38 per cent) of all retirees received more than one type of retirement income, in addition to any farm income they realized. Approximately 62 per cent of the retirees reported annual retirement incomes of less than $1,000 and 4 per cent (7 persons) reported none at all; the average was $974, and the range was from $75 to $6,000. Estimated annual cash living requirements averaged around $1,165 and ranged from $300 to $3,600.

Retirement income was one of two very important independent variables affecting net farm earnings. The other was age. In general, there was an inverse correlation between retirement income and net farm earnings. The emphasis placed on producing farm products for sale was determined more by needs than by desires. Therefore, the amount of retirement income per family was a most important factor affecting the operation of retirement farms and the amount of net farm earnings obtained. Retirees with no retirement incomes reported the highest net farm earnings—$980, as compared with $130 for federal retirees, the lowest except for welfare recipients.

Retirees farming for subjective reasons netted about $85, and those farming for economic reasons, $250. Apparently even minus economic returns provided some higher-income retirees with satisfactions and other values from farming. The degree of satisfaction any person experiences from farming depends upon that person's estimate of its importance. In the final analysis, it is the product of labor which satisfies desire, and which therefore commands price. It appears that the contributions of retirement farming are values many retirees are willing to pay for, even though the major rewards are noneconomic. This is somewhat borne out by the fact that 12 of 56 retirees whose annual retirement income exceeded $1,000 reported net losses from farming, as compared with 1 in 22 of those with annual retirement incomes between $1 and $500. Apparently individuals with reasonably ample retirement incomes placed more emphasis on intangible values and less on economic returns.

INFLUENCE OF AGE

The influence of age as a factor affecting net farm earnings was clear in all cross-tabulations. Forty-five per cent of the retirees interviewed were 71 years of age or older, 30 per cent were between 66 and 70, and 25 per cent were under 66. Other variables, such as education, size of family, years in residence on farm, physical disability, and whether receiving Old Age Assistance, were subordinated to age. On an average, retirees past 70 years of age earned just over a third as much from farming as those between 65 and 70; the averages were $120 and $307, respectively. When retirement income was held constant, an inverse relationship between age and net farm earnings was apparent. However, the youngest retirees (those under 55 years of age) reported the lowest net farm earnings of all ($46). Here the effect of the other independent variable—retirement income—is evidenced. As a rule a retiree could not retire at an early age unless his income was sufficient to maintain him.

In addition to the direct relationship of age and retirement income to net farm earnings, there were numerous intercorrelations between age, retirement income, and several other factors which were also correlated with net

farm earnings. For example, 76 per cent were classified on the basis of subjective criteria as either partially or totally disabled. With progressive increases in age, estimated living requirements declined. And net farm earnings dropped as living needs dropped. Also, 36 per cent of the older retirees had been farmers for at least some years immediately preceding retirement. About 39 per cent were dependent upon Old Age Assistance for cash income, and their farming activities were limited because of legal restrictions (permissible maximums have been placed on the number of poultry and farm animals, as well as upon the amount of land tilled). According to their unsolicited statements, some of the older people had also been forced to use some of their assets to meet medical and other expenses, and this reduced the resources from which they derived income.

LEVELS OF LIVING

The level of living of an individual or family is measured by economic goods and services possessed and consumed; it is closely related to income. Low-income retirees either raised their incomes from farming to meet their living requirements, or they limited their spending. Retirees with incomes which were more than ample for their needs often readjusted their spending habits to consume their retirement incomes. As a rule, the retirees had passed that stage of life where the desire to increase personal savings curtailed their spending.

The 14-item Sewell Scale was used for measuring socio-economic status.[10] Status scores were computed for 149 of the 175 retirees included in the study.[11] The forms containing the scores were then arrayed and divided into quartiles according to the calculated scores. The results demonstrated the direct relationship between retirement income and level of living. The average retirement incomes for the quartiles were \$544, \$808, \$905, and \$1,583, respectively. The respective status scores were 52, 64, 72, and 81. In other comparisons the score for one-person families was found to be 56, and that for families with two or more persons, 71; retirees with annual retirement incomes of \$749 or less averaged 62, and those with incomes over \$750 averaged 72 (Table 2).

In addition to the Sewell Scale, the interview schedule included certain other level-of-living items. For both the Sewell items and the others, Z_{ij} values (critical ratios) were calculated.[12] The tabulated Z_{ij} values indicated that certain items, both scale and non-scale, were less meaningful than others for testing the socio-economic status of retirees. In some instances, the computed Z_{ij} values were smaller than the critical value (2.0) for successive quartiles; in all instances but one, they were greater than 2.0 for extreme quartiles. This indicates that the level of living of low- and high-income retirees was quite different, but much less so as between successive income classes. But for the possession of electric lights, running water, radio, and gas and electric heaters, among

[10] Wm. H. Sewell, "A Short Form of the Farm Family Socioeconomic Status Scale," *Rural Sociology*, VIII:2 (June, 1943), pp. 161-170.

[11] Sewell status scores were not computed for retirement families in Lee and Pinellas counties, since neither of these counties properly reflect rural farm situations conducive to family farm operations. Pinellas County is a typical resort and urban retirement area, while semi-tropical Lee County is an area of large-scale commercial winter farm operations as well as a resort center.

[12] The following formula was used:

$$Z_{ij} = \frac{M_{pj} - M_{pi}}{\sqrt{\frac{N_i N_j n\,(N-n)}{N}}}$$

See Helen M. Walker and Joseph Lev, *Statistical Inference* (New York: Henry Holt and Company, Inc., 1953), p. 78.

TABLE 2. SOCIO-ECONOMIC STATUS SCORES OF RETIREMENT FARM FAMILIES AND PERCENTAGE OF THESE FAMILIES HAVING SPECIFIED HOME FACILITIES, BY NUMBER OF PERSONS IN THE FAMILY AND RETIREMENT INCOMES, THREE FLORIDA COUNTIES, 1951-1953

Item	All retiree families ($N = 149$)	Number of persons in the family		Retirement income	
		One ($N = 39$)	Two or more ($N = 110$)	$749 or less ($N = 70$)	$750 or more ($N = 79$)
	Average	*Average*	*Average*	*Average*	*Average*
Socio-economic status score (Sewell Scale)	67	56	71	62	72
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Home conveniences:					
Electricity*	89	82	91	81	95
Screened windows	83	77	85	77	89
Running water*	61	41	68	44	76
Kitchen sink	48	31	54	33	61
Bathtub	36	18	43	17	53
Screened porch	26	15	29	19	32
Shower bath	17	10	20	16	19
Telephone*	14	10	15	10	18
Type of heating:					
Wood heater	35	49	30	39	32
Installed oil heater	32	23	35	21	40
Fireplace	24	26	24	30	19
Portable oil heater	7	3	9	6	9
Gas heater	4	.....	5	6	3
Electric heater	2	3	2	4	.....
Cook stove:					
Electric	29	13	35	19	38
Kerosene oil	29	41	25	27	30
Wood	23	41	17	36	13
Gas	22	10	26	21	23
Other home facilities:					
Mechanical refrigerator*	66	46	73	53	77
Power washer*	50	31	57	34	65
Ice refrigerator*	28	41	23	36	20
Deep freeze	8	3	10	3	13

*These items are part of the Sewell scale; other items are not.

several other items, the fact that certain sample quartile proportions are either close to zero or close to unity weakens the conclusions based on the Sewell Scale. In addition to the above criticism, another disadvantage of the Sewell Scale was that its scores were unavoidably lowered when families consisted of only one person, or when one or both of the family heads were disabled. Physical disabilities adversely affected church attendance and the ownership of automobiles.

Four-fifths (81 per cent) of the retirees interviewed stated that their level of living had not dropped during retirement. In general, the findings suggest that farming usually enables retired families to maintain former material living standards, but that it may adversely affect social participation.

CONCLUSIONS

Public and private pensions are usually not adequate to meet all retirement needs, and are not likely to be so

in the future. The retirement farm survey indicated that farming is one means whereby retirees can better their financial situations through self-regulated employment and, if their retirement incomes are adequate, provide a means for personal adjustment. However, retirement farm operations must be tempered with realism.

A retiree who is hardy at age 65 may be infirm at 70 or sooner; this suggests a need for rapid amortization of investments in retirement farming. Many of the retirees interviewed were unable to drive automobiles, and comparatively few had telephones. All too frequently they were dependent upon friends or neighbors for off-farm transportation, and sometimes at considerable cost. Nearly all who lived some distance from neighbors felt in need of companionship. After a few years on the farm many of them wanted to be in or near an urban center where the church, the grocery store, and neighbors were within walking distance of their homes.

The results of this study suggest that personal adjustment to retirement seems more likely to be achieved in urban suburbs or small villages where public communication and transportation are nearly always available. In this regard two questions arise: First, is village or suburban agriculture likely to grow in prominence under current retirement programs? Second, is this an area demanding the attention of rural sociologists and agriculturists? To the writer it seems desirable that data should be compiled throughout the nation regarding the advantages and disadvantages of retirement farming. In the future, county agricultural agents, community leaders, and others may have to assume increasingly larger responsibilities in guiding retirees toward successful adjustments.

A SIMPLIFIED STATISTICAL METHODOLOGY FOR DEVELOPING MULTI-MEASURE INDICES AS RESEARCH TOOLS*

by Charles H. Coates and Alvin L. Bertrand†

ABSTRACT

The usefulness of multi-measure socio-economic and sociocultural indices in sociological research has become increasingly apparent. However, the complexity and laboriousness involved in developing such indices by multi-factor analysis and related methods has resulted in limited use of these important research tools. This paper outlines the steps in a simplified statistical methodology for the development of such indices which is fast, reliable, and economical, and which requires no knowledge of statistics other than correlation procedures.

The methodology described uses a unique single-digit system of coding and standardizing data, and a technique of correlation analysis which quickly reduces an original list of measures to a lesser number having "statistical homogeneity" (significant intercorrelation without duplication). It also employs a rapid method for combining and weighting the retained measures to form an index equation. To illustrate the methodology, a "universe" of 58 areas is objectively rank-ordered on the basis of the equation developed.

In concluding, it is pointed out that this simple methodology can be used to develop and combine a series of multi-measure indices into a master multi-index equation for over-all rank-ordering purposes—a procedure which can be used as a high-speed substitute for conventional multi-factor analysis.

INTRODUCTION

Increasingly, the usefulness in sociological research of socio-economic and sociocultural indices has become apparent. Such indices are the equivalent of the psychometrician's prediction or assessment equations. Generally speaking, psychometricians use their equations to differentiate and rank-order individuals, while socio-economic and sociocultural researchers use their indices to differentiate and rank-order groups of people occupying geographical space. Stratification and areal or regional delineation on the basis of a battery of socio-economic or sociocultural characteristics become the end-goals of such indices.[1] In a recent article, Lively and Gregory forcefully demonstrated the importance of subdividing the sociocultural landscape. They state that, when properly determined, "such subareas represent a more rational and economical approach to sociological research involving large areas, such as a group of counties or states, than any yet devised."[2] They recommend "multiple factor analysis" for this purpose. Probably because multiple factor analysis

*Developed in connection with a Southwest Land Tenure Research Committee Project.

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[1] See Margaret Jarman Hagood *et al.*, "An Examination of the Use of Factor Analysis in the Problem of Subregional Delineation," *Rural Sociology*, VI:3 (Sept., 1941), pp. 216-233; Margaret Jarman Hagood, "Statistical Methods for Delineation of Regions Applied to Data on Agriculture and Population," *Social Forces*, XXI:3 (Mar., 1943), pp. 287-297; C. E. Lively and R. B. Almack, *A Method of Determining Rural Social Sub-Areas with Application to Ohio*, Mimeo. Bull. 106, Ohio State University, Dept. of Rural Economics (Columbus, 1938); C. E. Lively and C. L. Gregory, *Rural Social Areas in Missouri*, Missouri AES Bull. 414 (Columbia, 1948).

[2] Charles E. Lively and Cecil L. Gregory, "The Rural Sociocultural Area as a Field for Research," *Rural Sociology*, XIX:1 (Mar., 1954), p. 21.

TABLE 1. SAMPLE SCORE CARD WITH RAW SCORES AND STEN SCORES FOR STATE ECONOMIC AREA 1, A*, IN LOUISIANA

Measure		Raw score (Amount per 100 farms)	Sten score
Number	Identification		
1	Milking machines	1.21	3
2	Grain combines	1.62	4
3	Corn pickers	.32	5
4	Pickup hay balers	3.00	6
5	Motor trucks	23.18	3
6	Tractors	14.50	3
7	No tractors, horses, or mules	37.73	7
8	No tractors, but 2 or more horses or mules	30.53	4
9	Machine hire	15.65	1
10	Gasoline and other petroleum fuel and oil	18.29	2
11	Electricity	52.30	3

*Area 1 and Metropolitan Area A are combined in the Agricultural Census tabulations.

is comparatively complex and laborious, sociological researchers have not fully exploited it as a research tool. This paper presents an alternate methodology which is simple, fast, widely adaptable to research problems, and as valid and reliable as any method now known to the present writers.

In the discussion which follows, a sample problem has been used to illustrate each step in the statistical procedure. The sample problem is only one example of the kind of research which can be accomplished using the methodology described. As will be seen, 58 state economic areas in five states (Arkansas, Louisiana, Mississippi, Oklahoma, and Texas) were ranked with complete objectivity, according to their relative extent of agricultural mechanization. They could have been similarly ranked on any other quantifiable multi-measure factor our research interest required.

SELECTION AND RECORDING OF MEASURES

The first step in a statistical analysis involving many measures with various degrees of meaningfulness is the selection of a logical battery of such measures. Individual researchers will generally have some basis for determining which measures are most meaningful in their particular problem. This step, of course, does not depart from conventional procedure. In the present illustrative case, the problem was to determine which characteristics listed in the 1950 U. S. Census of Agriculture for counties and the state economic areas of the five states best measured agricultural mechanization. From a preliminary list of fourteen such characteristics, three were discarded because of their being unreliable. The remaining eleven characteristics were retained as logico-meaningful measures of agricultural mechanization in the region under study.

In the second step, the amount of each characteristic in each economic area was uniformly expressed by simple conversion to the amount of the characteristic per 100 farms. The data so computed were recorded on fifty-eight cards (3″ x 5″)—one for each of the economic areas in the five-state "universe." Thus, each card had 11 entries—one for each characteristic. These entries were uniformly carried to two decimal places (see Table 1, raw scores). The use of this deck of cards becomes the basic labor-saving device in the present statistical procedure. The fact that such cards can be shuffled as readily as a deck of ordinary playing cards makes rank-ordering exceedingly simple and fast.

CODING PROCEDURE

Raw data in several digits with decimal points involve laborious statistical manipulation in correlation and other types of analysis. In addition, conversion of raw data to standard scores is generally required prior to computing a correlation matrix. The usual method of standard-score conversion involves figuring each standard score from the mean and standard deviation of its distribution and adding a constant to eliminate negative values. This is also extremely laborious. The resultant standard scores still have several digits and a decimal point and are no easier to manipulate than were the original raw scores.

Canfield[3] has developed a simple and very efficient modification of Guilford's *C*-Scale,[4] which is admirably suited to many types of socio-economic research, and which has been utilized in the present procedure. Canfield's standard ten, or "Sten," score system converts all raw data to continuous single-digit form for computing Pearson product-moment correlations either on a calculator or through the use of IBM cards. (It will be recalled, in passing, that as many as 80 variables can be single-digit punched into IBM cards.) The use of single digits is a great timesaver in statistical computations. A further advantage of the Sten scale is that it contains no negative values. Any distribution of raw scores can be converted into Sten scores and divided into score intervals by the frequency or per cent method. A Sten score guide card for use with the sample 58-unit "universe" is illustrated in Table 2. Note that the resultant number of cases in each Sten score interval is rounded into whole numbers. Sten scoring has the effect not only of standardizing but also of approximately normalizing each distribution. An obvious labor-saving advantage is that the sums, sums of squares, means, standard deviations, and variances—for each of the distributions of Sten scores—are constant.

TABLE 2. STEN SCORE GUIDE CARD

Sten scale (Per cent of *N*)	Sten score	Number of cards receiving score when $N = 58$*
2.3	9	1
4.4	8	3
9.2	7	5
14.9	6	9
19.2	5	11
19.2	4	11
14.9	3	9
9.2	2	5
4.4	1	3
2.3	0	1

*The numbers are rounded to whole numbers. The raw score on the top card in each rank order is assigned a Sten score of 9, the next three a Sten score of 8, and so on.

To convert the amount of each characteristic into a Sten score, one has simply to shuffle the deck of cards into rank order and refer to the guide card for the appropriate score. (Note the Sten scores recorded in Table 1.) Once Sten scores are assigned, the cards are ready for the computation of a correlation matrix. This may be done on a calculator or on IBM equipment. If the latter is available, the Sten scores can be punched into a corresponding deck of IBM cards for high-speed statistical manipulation. In either case, the deck of filing cards remains the readily available and manipulable file of basic data.

ANALYSIS OF DATA

In analyzing the coded data on the cards, the underlying hypothesis is that, from a battery of logico-meaningfully related measures, a lesser number of significantly intercorrelated

[3] A. A. Canfield, "The 'Sten' Scale–A Modified *C*-Scale," *Educational and Psychological Measurement*, XI:12 (1951), pp. 295-298.

[4] J. P. Guilford, *Fundamental Statistics in Psychology and Education* (New York: McGraw-Hill Book Co., Inc., 1950), pp. 302-306.

TABLE 3. MATRIX OF SUMS OF CROSS-PRODUCTS IN ILLUSTRATIVE PROBLEM

Measure		Measure number									
Number	Identification	2	3	4	5	6	7	8	9	10	11
1	Milking machines	1245	1228	1226	1291	1275	1082	1105	1216	1275	1282
2	Grain combines		1289	1280	1303	1354	1093	1034	1352	1347	1267
3	Corn pickers			1277	1195	1281	1166	1086	1251	1255	1226
4	Pickup hay balers.....				1253	1290	1111	1138	1252	1282	1194
5	Motor trucks					1329	1044	1065	1245	1337	1384
6	Tractors						1056	1015	1337	1380	1304
7	No tractors, horses, or mules							1169	1126	1046	1126
8	No tractors, but 2 or more horses or mules..								1023	1035	1033
9	Machine hire									1336	1284
10	Gasoline and other petroleum fuel and oil.										1307
11	Electricity										....

Note:

1. Sums of Sten scores; all = 261.
2. Sums of squared Sten scores; all = 1397.
3. Only sums of cross-products of Sten scores vary.
4. $$r = \frac{N(\Sigma XY) - (\Sigma X)(\Sigma Y)}{\sqrt{[N(\Sigma X^2) - (\Sigma X)^2]\,[N(\Sigma Y^2) - (\Sigma Y)^2]}}$$
$$= \frac{58(\Sigma XY) - (261)^2}{58(1397) - (261)^2} = \frac{58(\Sigma XY) - 68121}{12905}$$
5. If ΣXY is less than 1175, r is negative.

measures will be found, which, when properly weighted, can be combined to form an index equation for accurately measuring rank order. In our example, the relative extent of agricultural mechanization in the 58 state economic areas was to be determined. The purpose of correlation analysis here is to discover what is called by the writers, "statistical homogeneity." The meaning of this term will become apparent in the discussion which follows. When possible, the use of negatively correlated, or suppressor, variables is advisable. In the illustration, the measures numbered 7 and 8 in Table 1 are expected to be negatively correlated with the other nine measures and thus act as suppressor variables.

Again it will be noted that the use of single-digit Sten scores, in the calculating machine or with IBM cards, saves considerable time in the computation of intercorrelations. As previously mentioned, once the sums and the sums of squares have been established, they are the same for every Sten score distribution. Only the sums of cross-products vary, and this is the only variable to be accumulated. Table 3 represents the matrix of the sums of cross-products in the illustration.

When the formula for the Pearson correlation coefficient is written and modified, only the sums of cross-products need to be substituted thereafter, and the extraction of square roots is completely eliminated, thereby saving more time and effort. Also, one can see at a glance when r is negative.

With the matrix of sums of cross-products available, it is a compara-

TABLE 4. STEPS IN CORRELATION ANALYSIS IN THE ILLUSTRATIVE PROBLEM

A. CORRELATION MATRIX

Measure number	Measure number 1	2	3	4	5	6	7	8	9	10	11
1	--	.32	.24*	.23*	.52	.45	-.42	-.31	.19*	.45	.48
2	.32	--	.51	.47	.58	.81	-.37	-.63	.80	.78	.42
3	.24*	.51	--	.46	.09*	.48	-.04*	-.40	.34	.36	.23*
4	.23*	.47	.46	--	.35	.52	-.28	-.16*	.35	.48	.09*
5	.52	.58	.09*	.35	--	.69	-.59	-.49	.32	.73	.49
6	.45	.81	.48	.52	.69	--	-.53	-.72	.73	.92	.58
7	-.42	-.37	-.04*	-.28	-.59	-.53	--	-.02*	-.22*	-.58	-.22*
8	-.31	-.63	-.40	-.16*	-.49	-.72	-.02*	--	-.68	-.63	-.64
9	.19*	.80	.34	.35	.32	.73	-.22*	-.68	--	.72	.49
10	.45	.78	.36	.48	.73	.92	-.58	-.63	.72	--	.60
11	.48	.42	.23*	.09*	.49	.58	-.22*	-.64	.49	.60	--
Sums =	2.15	3.69	2.26	2.51	2.69	3.93	-3.27	-4.68	3.04	3.83	2.52
Reflecting #7 & #8 for all positive sums =	3.61	5.69	3.14	3.39	4.85	6.43	3.27	4.68	4.84	6.25	4.24

*Insignificant correlations, since r = .257 with 57 degrees of freedom for 5-per-cent level of confidence. Discard #1, #3, #4, and #7.

B. COMPOSITE REFLECTED MATRIX

Measure number	Measure number 2	5	6	8	9	10	11
2	--	.58	.81	.63	.80	.78	.42
5	.58	--	.69	.49	.32	.73	.49
6	.81	.69	--	.72	.73	.92	.58
(-) 8	.63	.49	.72	--	.68	.63	.64
9	.80	.32	.73	.68	--	.72	.49
10	.78	.73	.92	.63	.72	--	.60
11	.42	.49	.58	.64	.49	.60	--
Sums	4.02	3.30	4.45	3.79	3.74	4.38	3.22

Note: #10 is duplicating #6. Discard #10.

C. FINAL REFLECTED MATRIX

Measure number	Measure number 2	5	6	8	9	11
2	--	.58	.81	.63	.80	.42
5	.58	--	.69	.49	.32	.49
6	.81	.69	--	.72	.73	.58
(-) 8	.63	.49	.72	--	.68	.64
9	.80	.32	.73	.68	--	.49
11	.42	.49	.58	.64	.49	--
Sums	3.24	2.57	3.53	3.16	3.02	2.62

tively rapid and easy process to complete the correlation matrix (Table 4A). The matrix in the illustrative problem contains two negative measures, as expected. When this occurs, it is necessary to reflect (reverse the signs of the correlations in the negative columns), in order to make all column sums positive. The purpose of reflection is to establish signs for use in the subsequently derived index equation and to indicate the relative power of the series of measures.

At this point, inspection of the reflected matrix should be made to determine if there are any correlations falling below the 5-per-cent level of significance. Such coefficients could have occurred by chance only. Four of the measures in the sample problem were eliminated because of several insignificant intercorrelations. A composite reflected matrix of the seven remaining measures was constructed. (See Table 4B.) Note that in Table 4B, a *minus* sign (−) appears over and opposite Measure 8 to indicate that it is a suppressor.

The composite reflected matrix should be examined for duplicating measures. In the illustration, it is apparent that Measure 10 is duplicating Measure 6, because of their extremely high intercorrelation and the similarity of their correlations with the other measures. Measure 10 is logically discarded and a final reflected matrix constructed. (See Table 4C.) The final reflected matrix shows intercorrelations which are all significant; it has what has been previously referred to as "statistical homogeneity." It now becomes apparent that the index equation for our problem will have six of the original eleven measures, with one of the six a negative or suppressor measure. Any further attempt to reduce the number of measures in this particular equation will obviously lessen its discriminatory power. However, in other problems, the number of measures might be reduced even further, if statistical logic justifies, or if a 1-per-cent level of significant intercorrelation is demanded.

WEIGHTING PROCEDURE

There are several methods of obtaining weights for the multi-measure index equation, depending on the degree of accuracy desired. The simplest method is to assign nominal weights of unity to each of the measures. In the illustration, this results (with a negative value assigned to the suppressor, Number 8) in the following equation:

AGRICULTURAL MECHANIZATION (approx.) $= S_2 + S_3 + S_6 - S_8 + S_7 + S_{11}$ (where all measures are in standard Sten scores).

The next step is the rank-ordering of the code cards on this simple index. All eliminated measures are crossed out, and the algebraic sum of Sten scores from the above equation is entered on each card. The distribution of these algebraic sums becomes an approximate criterion of what is being measured. In our example, it is agricultural mechanization. The cards are then reranked on these sums. Should tie sums occur, cards are arranged on the basis of areal contiguity. The distribution of sums is then converted to Sten scores, and this Sten distribution is entered on, or punched into, the cards for further correlation with other measures if desired. Table 5 is included only to show the data which are now recorded on the cards. It is not necessary to construct such a table.

For many purposes, the work can be stopped at this point. If greater precision is desired, as when tie-breaking is required, the measures in the equation must be more accurately weighted. The various "factor analysis" methods

TABLE 5. APPROXIMATE AGRICULTURAL MECHANIZATION RANK ORDER OF STATE ECONOMIC AREAS IN THE ILLUSTRATIVE PROBLEM

Approximate rank order	Economic area*	Total number farms	Sten score of measure number						Algebraic sums of Sten scores	Sten scores on basis of mechanization
			2	5	6	(-) 6	9	11		
1	T-5	13,972	8	7	9	(-) 0	9	9	42	9
2	T-4	12,202	9	9	8	(-) 1	8	6	39	8
3	T-6a	26,780	7	6	8	(-) 1	8	8	36	8
4	O-1	12,419	8	8	8	(-) 2	7	5	34	8
5	O-2	17,448	8	7	7	(-) 2	7	7	34	7
6	T-6b	5,551	7	6	7	(-) 2	7	7	32	7
7	O-4	21,875	7	6	7	(-) 2	7	6	31	7
8	T-7c	8,146	7	5	6	(-) 2	7	8	30	7
9	T-2	12,702	7	7	6	(-) 3	6	7	30	7
10	T-15	9,803	5	7	7	(-) 1	6	6	30	6
11	T-7bAB	10,687	6	5	6	(-) 3	6	8	28	6
12	T-11AF	17,743	6	6	7	(-) 3	6	5	27	6
13	T-6a	15,324	6	6	6	(-) 3	6	6	27	6
14	T-8aC,8aH	57,042	5	4	6	(-) 3	6	7	25	6
15	O-5AB	18,650	6	6	6	(-) 3	5	4	24	6
16	T-1aAA	2,178	5	8	6	(-) 4	5	4	24	6
17	T-1b	3,480	6	8	5	(-) 6	5	6	24	6
18	A-7a	27,799	6	5	5	(-) 4	6	5	23	6
19	A-7b	7,118	6	6	5	(-) 4	5	5	23	5
20	O-3AA	14,616	6	6	6	(-) 4	4	4	22	5
21	T-3	4,649	5	7	6	(-) 4	5	2	21	5
22	T-14,GAH	23,735	5	5	5	(-) 4	4	6	21	5
23	O-7a	7,943	5	5	5	(-) 4	5	4	20	5
24	T-10	16,546	4	3	5	(-) 4	6	5	19	5
25	L-7	11,849	6	5	5	(-) 5	3	5	19	5
26	M-7	8,667	3	5	4	(-) 3	4	6	19	5
27	A-3AA	19,618	5	4	4	(-) 6	4	6	17	5
28	A-1a	10,129	3	5	4	(-) 5	4	6	17	5
29	L-2	24,043	5	2	4	(-) 5	5	4	15	5
30	M-1	57,102	5	0	3	(-) 3	8	1	14	4
31	A-8a	25,994	5	2	4	(-) 4	5	2	14	4
32	A-8b	13,720	5	2	4	(-) 5	5	3	14	4
33	L-6	9,029	3	2	5	(-) 5	4	5	14	4
34	O-6	10,876	3	4	5	(-) 5	4	3	14	4
35	O-7b	5,405	4	4	5	(-) 7	4	4	14	4
36	M-4	28,574	3	3	4	(-) 7	6	4	13	4
37	L-5AB	18,968	3	3	3	(-) 4	3	5	13	4
38	A-2	14,342	4	5	4	(-) 7	2	5	13	4
39	M-8	2,807	1	3	3	(-) 3	2	7	13	4
40	A-4	12,041	3	6	3	(-) 6	1	5	12	4
41	A-5	13,573	4	4	4	(-) 6	3	3	12	3
42	T-9	15,712	2	3	4	(-) 6	4	4	11	3
43	T-12	60,122	1	4	4	(-) 5	3	4	11	3
44	A-6	16,708	3	4	2	(-) 5	3	4	11	3
45	L-4	16,203	2	3	2	(-) 5	3	5	10	3
46	M-5	22,835	4	1	3	(-) 4	5	3	9	3
47	L-1AA	14,589	4	3	3	(-) 4	1	2	9	3
48	O-8a	12,651	4	5	5	(-) 7	2	0	9	3
49	M-6a	43,052	3	3	0	(-) 6	4	4	8	3
50	M-3AA	25,620	4	3	2	(-) 6	3	2	8	2
51	O-8b	6,653	4	5	3	(-) 8	3	1	8	2
52	M-2	39,210	4	1	2	(-) 5	5	1	9	2
53	L-3	21,040	4	1	3	(-) 9	4	3	6	2
54	M-6b	23,419	2	2	1	(-) 6	3	3	5	2
55	O-9	13,632	2	4	3	(-) 8	2	2	5	1
56	T-13	15,042	0	4	2	(-) 5	0	3	4	1
57	L-8	8,301	1	4	1	(-) 6	1	3	4	1
58	A-1b	21,264	2	4	1	(-) 8	2	3	4	0

*The designations used are the official U. S. Census designations. The first letter identifies the state (A = Arkansas, etc.). Capital letters following the area number indicate metropolitan areas which, in the agricultural census, are combined with the specified adjoining or surrounding economic area. Small letters following the number indicate subdivisions of economic areas which, in the agricultural census, are treated as separate areas. See Donald J. Bogue, *State Economic Areas*, U. S. Department of Commerce, Bureau of the Census (Washington, D. C.: U. S. Government Printing Office, 1951).

of obtaining "loadings" (weights)[5] were rejected by the writers for the reasons which follow: These methods can become laborious and complicated; there is a hiatus involved in initially choosing diagonal entries; and residual variances associated with other unnamed factors remain after the first factor loadings have been extracted. The availability of the Sten score distribution of the approximate criterion makes unnecessary the use of more laborious methods of obtaining weights. Accurate weights can be obtained simply by correlating the Sten score distribution of each measure with the Sten score distribution of the approximate criterion (*not with the distribution of algebraic sums*). Again, only the cross-products need to be accumulated for substitution in the modified equation for *r*. When this is done in the present illustration, the following final index equation results, with weights carried to three decimal places for accuracy:

AGRICULTURAL MECHANIZATION = $.847S_2 + .658S_5 + .897S_6 - .816S_8 + .802S_9 + .744S_{11}$ (where all measures, as previously identified, are in standard Sten scores).

It will be noted that the sign of Measure 8 again appears as negative, further substantiating the fact that it is a suppressor measure.

Before proceeding further, the accuracy of the weights can be tested. It is known that the standard deviation of any of the Sten distributions, when squared, equals its variance. The variance in the Sten score distribution of the approximate criterion in our illustration, like that of all the other Sten score distributions, equals 3.836. It is also known that the squared correlation coefficient of each measure (its squared weight) represents its contribution to the variance in the criterion. In this example, the squared and summed weights equal 3.818. When the latter figure is divided by the former and the result multiplied by 100, it is found that 99.5 per cent of the criterion variance is accounted for, which obviously is extremely accurate.[6]

The final step is to substitute from the deck of cards in the final index equation. If it is desired to correlate the final index with other measures or indices, the scores derived from solving the equation can be entered on the original cards, the cards reranked, and the Sten score distribution of the final criterion entered. A single digit now replaces all other entries for further correlation with any other Sten-converted measures in which the researcher is interested.

For those interested in examining the final rank-order array of the illustrative problem, Table 6 was prepared. The correlation of the approximate criterion and the final criterion sums is .99, while the correlation of their respective Sten score distributions is .98. This futher indicates that the weights in the final AGRICULTURAL MECHANIZATION index equation of the illustration are extremely accurate.

OBSERVATIONS RELATIVE TO RESEARCH APPLICATION

It should be noted that the AGRICULTURAL MECHANIZATION index equation developed here is based upon a somewhat arbitrary initial selection of a list of logico-meaningful measures. There are other measures available in the census, and a different initial list would have resulted in a dif-

[5] For an illustration of the factor analysis method of obtaining first factor weights, see M. J. Hagood and D. O. Price, *Statistics for Sociologists* (New York: Henry Holt & Co., 1952), chap. 26.

[6] Several complicated factor analysis and beta weight methods of obtaining loadings were experimented with. None of them met this test so well.

TABLE 6. FINAL AGRICULTURAL MECHANIZATION RANK ORDER OF STATE ECONOMIC AREAS IN THE ILLUSTRATIVE PROBLEM

Rank	Economic area*	Agricultural Mechanization score	Sten score (for further correlation)	Rank	Economic area*	Agricultural Mechanization score	Sten score (for further correlation)
1	T-5	33.369	9	30	M-1	11.638	4
2	T-4	30.785	8	31	A-8a	11.373	4
3	T-6*a*	28.605	8	32	A-8b	11.301	4
4	O-1	26.918	8	33	L-6	11.190	4
5	O-2	26.851	7	34	O-6	11.018	4
6	T-6b	25.346	7	35	O-7b	10.977	4
7	O-4	24.602	7	36	M-4	10.179	4
8	T-7c	24.535	7	37	L-5&B	10.068	4
9	T-15	23.580	7	38	A-2	9.878	4
10	T-2	23.489	6	39	M-8	9.876	4
11	T-7b&*B*	22.070	6	40	A-5	9.350	4
12	T-11&*F*	21.393	6	41	A-4	8.806	3
13	T-7*a*	21.240	6	42	T-9	8.544	3
14	T-8, *C,D,&E*	19.821	6	43	T-12	8.369	3
15	O-5&*B*	18.950	6	44	A-6	8.269	3
16	T-1*a*&*A*	18.603	6	45	L-4	7.508	3
17	T-1b	18.409	6	46	M-5	7.267	3
18	A-7a	18.125	6	47	L-1&A	7.079	3
19	A-7b	17.981	5	48	O-8a	7.055	3
20	O-3&*A*	17.332	5	49	M-3&A	6.154	3
21	T-3	16.457	5	50	O-8b	5.991	2
22	T-14, *G&H*	16.418	5	51	M-6a	5.803	2
23	O-7*a*	15.732	5	52	M-2	5.722	2
24	T-10	15.115	5	53	L-3	4.833	2
25	L-7	14.903	5	54	M-6b	3.649	2
26	M-7	14.643	5	55	O-9	3.581	1
27	A-3&*A*	13.231	5	56	T-13	2.578	1
28	A-1*a*	13.011	5	57	A-1b	2.531	1
29	L-2	12.045	5	58	L-8	2.514	0

*See footnote to Table 5.

ferent index equation. This arbitrariness cannot be avoided, however; and, as in most research, the insight of the researcher must be relied upon. It should also be pointed out that other methods of obtaining weights would have resulted in different weights and a different final rank-order array. In fact, it might appear that an even simpler way of obtaining an index of this nature is to rank-order the areas on each raw measure, the index becoming the mean or sum of the ranks. This would eliminate going through the correlation analysis, but such an attempt at oversimplification would obviously include insignificantly intercorrelated measures in the index and, therefore, would lack "statistical homogeneity."

No universality is claimed for the index equation developed. Hence, no attempt has been made to relate it to 100 or to convert it for direct substitution of raw scores, as is customary when universality is claimed. What has been developed is not a universal index but a simple and efficient statistical methodology for developing any type of multi-measure index for any selected universe. For example, a similar index for any state could be developed, using the counties as subunits. (There are, however, several states with too few counties to make this worth while.)

As has been stated, it is often desired to use indices of this nature for graphic areal or regional delineation. Such delineation can be accomplished by stratifying the final rank-order array into class intervals on the basis of index similarity and areal or regional contiguity, although some minor departures from actual contiguity may occasionally have to be made.

A further important research implication of the present method is that a series of multi-measure socio-economic or sociocultural indices, developed by this comparatively simple and efficient technique, can each be converted to a Sten score distribution in single digits, intercorrelated to discover statistical homogeneity, combined, and weighted to form a master index of whatever over-all factor they logico-meaningfully measure. This may be termed "multi-index analysis" and is much simpler than the conventional multi-factor analysis.

In conclusion, it is hoped that the statistical methodology described will provide many researchers with a useful and labor-saving tool for much previously neglected socio-economic and sociocultural research. Statistical research of this nature, the writers are convinced, can be pleasureful as well as profitable.

RESEARCH NOTES

A GUTTMAN SCALE FOR MEASURING ISOLATION*

by Herbert A. Aurbach†

The present paper is part of a larger research in which the author is attempting to develop a classification *schema* for the counties of Kentucky, using the theoretical framework of the folk-urban continuum.[1] One generally recognized characteristic of the folk end of this continuum is isolation.[2] This aspect of the study is concerned with the development of a Guttman scale[3] by means of which counties might be ranked as to relative isolation. *Isolation* is defined here as the absence or paucity of communication and transportation facilities.

Kentucky provides an excellent laboratory both for testing the general usefulness of the folk-urban continuum in the sociological classification of counties and for developing a measure of isolation which might be useful elsewhere. The mountain areas of eastern and southeastern Kentucky are generally regarded as among the most "folk-like" in the nation, while the Bluegrass horse-farm country is a highly commercialized and "urbanized" agricultural area; there are also several Kentucky counties which are included in the metropolitan areas of large cities (Cincinnati, Huntington, and Louisville) and are highly industrialized.

The choice of the county as the unit of study was based primarily on the availability of data. Although it would be desirable to have a scale which could be applied to other units (such as communities), the data, for the most part, are not available in collected form. In Kentucky, the county has considerable meaningfulness as a socio-economic unit.

The Guttman technique seemed to offer a number of advantages for the task at hand. It provides a scale score which is meaningful and unambiguous, and thus eliminates the necessity of assigning artificially derived weights to individual items. It provides a test of the unidimensionality of the content being studied. The occurrence of errors in the scale pattern points up inconsistencies within particular counties, which in this study were found to be counties of great heterogeneity or other special conditions which explain the error.

DEVELOPMENT OF THE SCALE

On the basis of a review of the literature and suggestions of sociologists at the University of Kentucky, sixteen items were selected *a priori* as being indices of isolation. Two of these—telegraph traffic per capita and passenger miles of bus and railroad travel—were discarded because of the un-

*The investigation reported in this paper is in connection with a project of the Kentucky Agricultural Experiment Station and is published by approval of the director. It is a revision of a paper read at the Ohio Valley Sociological Society meetings held at Purdue University, March 19-20, 1954. Grateful acknowledgment is made to Howard W. Beers for his contributions to the theoretical framework of this research, and to the members of the Sociology and Rural Sociology Departments of the University of Kentucky, especially C. Arnold Anderson and A. Lee Coleman, who contributed many helpful suggestions and criticisms. Further acknowledgment and thanks are made to the University of Kentucky Project in Educational Administration, partially financed by the Kellogg Foundation, for support of this study.

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[1] This is Redfield's terminology. Closely related concepts are Becker's "sacred-secular" continuum, Odum's "folk culture-state civilization," Tönnies' *gemeinschaft* and *gesellschaft* (and Loomis' adaptation of these concepts), Durkheim's "society with mechanical solidarity and society with organic solidarity," and Comte's early "theological and positivistic societies."

See Robert Redfield, "The Folk Society," in Logan Wilson and William L. Kolb, *Sociological Analysis* (New York: Harcourt, Brace and Co., 1949), pp. 349-366; Howard Becker, *Through Values to Social Interpretation* (Durham, N. C.: Duke University Press, 1950), p. 46; Howard W. Odum, "Folk Sociology as a Subject Field for the Historical Study of Total Human Society and the Empirical Study of Group Behavior," *Social Forces*, XXI:3 (Mar., 1953), pp. 193-223; Charles P. Loomis and J. Allan Beegle, *Rural Social Systems* (New York: Prentice-Hall, 1950), pp. 3-36 and 789-824; Emile Durkheim, *De la division du travail social* (Paris: Alcan, 1893).

[2] See Becker, *op. cit.*, and Redfield, *op. cit.*

[3] A good short summary of the application of this technique to sociological data may be found in Margaret Hagood and Daniel O. Price, *Statistics for Sociologists* (New York: Henry Holt and Co., 1952), pp. 143-153. The best and most detailed exposition of the theory and methodology may be found in Samuel Stouffer *et al.*, *Measurement and Prediction* (Princeton, N. J.: Princeton University Press, 1950), pp. 3-361. Probably the earliest application of scalogram analysis to areas rather than to individuals was by Gilbert Shapiro, "Myrdal's Definition of the 'Bou'h': A Methodological Footnote," *American Sociological Review*, XIII:5 (Oct., 1948), pp. 619-621. The specific technique of analysis used here is given in Louis Guttman, "The Cornell Technique for Scale and Intensity Analysis," *Educational and Psychological Measurement*, VII:2 (1947), pp. 247-280.

TABLE 1. ISOLATION SCALE FOR KENTUCKY COUNTIES

Score	Scale Items	Marginal percentage	Errors
2	Rail and/or air transportation present, 1952	83	5
0	Rail and/or air transportation not present, 1952	17	.....
2	$2.00 or more postal receipts per capita in 1952	73	5
0	Less than $2.00 postal receipts per capita in 1952	27	.....
2	10 or more daily newspapers circulated per 100 capita, 1952-53	64	5
0	Less than 10 daily newspapers circulated per 100 capita, 1952-53	36	.....
2	10% or more of total farms had telephones, 1950	63	8
0	Less than 10% of total farms had telephones, 1950	37	.....
2	Less than 25% of total farms located 1 mile or more distance over dirt roads from trading center most frequently visited, 1950	58	14
0	25% or more of total farms located 1 mile or more distance over dirt roads from trading center most frequently visited, 1950	42	.....
2	20 or more passenger cars per 100 capita, 1952	57	3
0	Less than 20 passenger cars per 100 capita, 1952	43	.....
2	90% or more of dwellings reporting radios, 1950	59	14
0	Less than 90% of dwellings reporting radios, 1950	41	.....
2	Less than 20% of total farms located on dirt roads, 1950	52	8
0	20% or more of total farms located on dirt roads, 1950	48	.....
2	55% or more of total farms reporting automobiles, 1950	47	10
0	Less than 55% of total farms reporting automobiles, 1950	53	.....
2	10 or more residence telephones per 100 capita, 1952	36	19
1	5-9 residence telephones per 100 capita, 1952	24	.....
0	Less than 5 residence telephones per 100 capita, 1952	40	.....
2	40 or more vehicles per mile of state-maintained rural road, 24-hour period, 1952	22	7
0	Less than 40 vehicles per mile of state-maintained rural road, 24-hour period, 1952	78	.....

availability of adequate data. Eleven of the remaining items were found to fit a Guttman-scale model with a reproducibility coefficient of .93. These items, the score values after final combining of categories, the marginal percentages, and the errors are given in Table 1. Three of the scale items relate to the availability of transportation carriers within the county (presence of rail or air transportation, passenger cars per capita, and percentage of farms reporting automobiles). Two items concern road conditions (percentage of farms located on dirt roads and percentage of farms located one mile or more over dirt roads from trading center). Another transportation item (vehicles per mile of state-maintained rural road) is a measure of traffic flow. Three items deal with oral communication (percentage of dwellings reporting radios, residence telephones per capita, and percentage of farms reporting telephones). The remaining items (postal receipts per capita and daily newspaper circulation per capita) relate to written communication.

The three items that did not scale, and some probable reasons for their lack of scalability, are as follows:

(1) *Percentage of dwellings reporting television.*—The failure of this item to scale was probably due to poor coverage of television in Kentucky at the time of the 1950 census enumeration. Some of the most urbanized areas had extremely poor reception, which discouraged wide use of this medium at that time. This may prove to be a better item in the future.

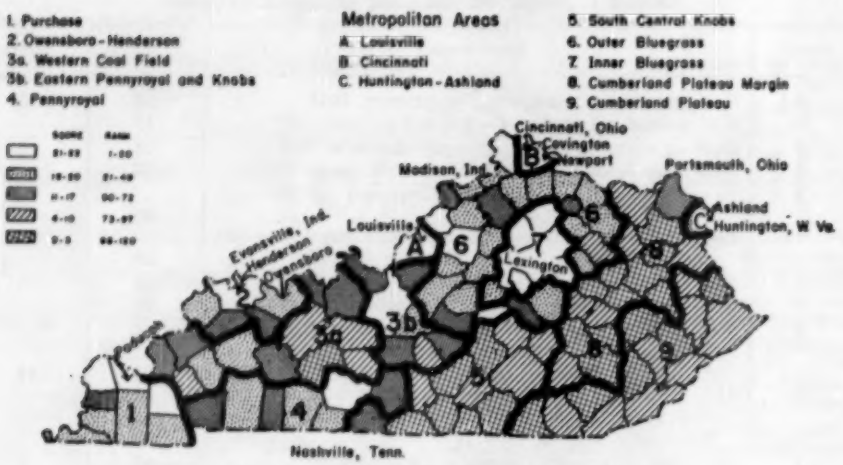


FIGURE 1. ISOLATION SCALE AND ECONOMIC AREAS

(2) The presence of local daily newspapers.—The local daily seems to be dying out in Kentucky's smaller communities. Many relatively urbanized areas get their daily newspapers from metropolitan centers 50 or more miles away.

(3) Percentage of farms located five or more miles from the most frequently used trading center.—The failure of this item is probably due to the weakness of the item itself. Accessibility is no longer determined by distance alone.

TOWARD VALIDATION AND APPLICATION

In the 1950 census, "economic areas" were delineated for each state. These are defined as "relatively homogeneous subdivisions of states . . . single counties or groups of counties which have similar economic and social characteristics."[4] Isolation and other aspects of the folk-urban continuum appear to be social characteristics relevant to the delineation of such areas. A comparison of the ranking of counties on the isolation scale with the grouping of counties in economic areas may serve alternatively as an approach to partial validation of the scale and as a test of the homogeneity of the areas.

For this purpose, the isolation scores of the 120 Kentucky counties were arrayed and the counties divided into five scale types, ranging from least isolated to most isolated. Each type included approximately a fifth of the counties; the distribution of scores necessitated minor variations. When the types are marked on a map (Figure 1) geographic groupings that correspond fairly closely to the economic areas are apparent. Almost all of the most isolated two-fifths fall in the two Cumberland Plateau areas (8 and 9) and the South Central Knobs (Area 5). In these three areas, only two counties are other than of the two most-isolated types. These physically rugged areas of eastern and south-central Kentucky have long been regarded as the most economically depressed and culturally lagging parts of the state. This is particularly true of the Cumberland Plateau Margin (Area 8) and the South Central Knobs (Area 5), where physical and cultural isolation is indicated by the fact that more than half of the counties are of the most-isolated type. The Cumberland Plateau (Area 9) shows somewhat less isolation, due no doubt to its highly developed coal-mining industry. The only other area having any appreciable number of counties of the two most-isolated types is the Western Coal Field (Area 3a), particularly in its easternmost section. This section has generally been regarded as socio-economically comparable to its eastern Kentucky counterpart in the Cumberland Plateau.

Three of the four metropolitan counties are in the least-isolated group, and the one exception—Boyd County (Area C)—contributes four errors to the scalogram, which seem to be due to the contrast between conditions in the strictly rural and the ur-

[4] Donald J. Bogue, *State Economic Areas* (Washington, D. C.: U. S. Bureau of the Census, 1951), p. 1.

banized parts of the county. All but one of the highly developed Bluegrass counties (Area 7) fall in the least-isolated type, and the single exception is the next group.

The other areas show a little less homogeneity, but this is in line with what is known about them. For the most part, a given area includes no more than three of the five scale types, and these are "adjacent" types. The exceptions can be explained by special conditions which are known to exist in the particular counties and which make delineation or "typing" on any basis difficult.

In a further attempt at partial validation of the scale, ninety-three judges, chosen because of their knowledge of the state, were requested by mail to rate each county with which they were familiar, along a five-point scale of rurality-urbanity. The scale positions ranged from "very rural" to "very urban," in terms of Kentucky. The word *rural* rather than *folk* was used, because of the technical connotations of the latter. Since it was hoped that the data could be used in other phases of the research, the judges were asked to rate in terms of the more general criterion of rurality rather than the specific variable of isolation.

Eighty-three of the judges returned their rating sheets. Four were not usable. Scores were derived from the combined ratings of the remaining seventy-nine judges. The ratings of the counties by the judges and by the scale had a rank order correlation of .83.

SUMMARY AND CONCLUSION

By means of the Guttman scaling technique, eleven indices of the availability of transportation and communication facilities in a county were shown to form a unidimensional universe of content, which has been designated *isolation*. By means of the Isolation Scale scores, the 120 counties of Kentucky were ranked along a continuum from most to least isolated; and five scale types, each including about a fifth of the counties, were established. This ranking was highly correlated with the average ranking of a panel of 79 well-informed judges who were asked to distribute the counties along a five-point scale of rurality-urbanity. When the scale type of each county was marked on a map, geographic clusters of the same or "adjacent" scale types were apparent; these corresponded roughly to the State Economic Areas, as designated in the 1950 census. This suggests some verification of the homogeneity of these areas, and the correspondence may be regarded as partial validation of the scale.

Since isolation is a characteristic of folk society, it seems probable that Guttman scales can be developed to measure other characteristics of the folk-urban continuum. Moreover, if the folk-urban continuum is of a single dimension, it should be possible to develop a single scale to measure the degree of folkness or urbanity of the counties. With such a scale or scales, a meaningful and useful classification of counties, based in the theory of the folk-urban continuum, should be possible. This may provide a valuable complementary approach to the delineation and study of homogeneous areas.[5]

[5] For a summary of the sociological research on the delineation of homogeneous areas, particularly that of Bogue, Hagood, Lively, and Mangus, see Charles E. Lively and Cecil L. Gregory, "The Rural Socio-Cultural Area as a Field for Research," *Rural Sociology*, XIX :1 (Mar., 1954), pp. 21-31.

AN EVALUATION OF THE FARMERS HOME ADMINISTRATION—A SOCIAL ACTION AGENCY

by Walter E. Boek† and Jean K. Boek††

This discussion is concerned with an attempt to measure effects of the Farmers Home Administration, a nation-wide federal government agency which has a program designed to extend and preserve the family-farm type of agriculture in the United States.[1] Family farms were deemed necessary by planners because it was felt that family farm people were one of the most important stabilizing factors in a democracy.

The Farmers Home Administration was the 1946 successor to the Farm Security Administration established by Congress in 1937. The significant function of this agency was to help selected tenants purchase family-size farms or livestock and supplies by lending them the necessary money which they could not get elsewhere. Low interest rates and a long repayment period were provided, along with some guidance in farm and home management.

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PREVIOUS RESEARCH

Ten Years of Rural Rehabilitation in the United States, by Olaf F. Larson and others,[2] and Larson's articles, particularly "Rural Rehabilitation—Theory and Practice" in *Rural Sociology,*[3] summarized most of the research done up to 1947 and advanced theories inherent in the supervised family-farm loaning program.[4]

Larson's purpose was not to conduct extensive new research but rather to utilize available records in his analysis. He stated that surveys of Farmers Home Administration families, after acceptance and while on the program, indicated improvement for many of them in health, tenure status, production of food for family use, household facilities and equipment, income, net worth, working capital, land resources, and leasing arrangements. Changes in such significant factors as attitudes, morale, and work habits, however, had not been adequately measured even for active borrowers. Also, gains made while on the program by families already paid up, dropped, or on a "collection only" basis were "largely an open question." "Measuring change after acceptance is impossible for many important items unless the 'at' or 'before' acceptance situation is known."[5]

Larson's work and that of others[6] indicated that the crucial problem was that of isolating the effect of FHA from that of other variables operating at the same time. How many changes in the families, as reported in previous surveys, were due to the rising price level or to movement through the family life cycle rather than to the supervised loan procedure was not known. Actually, the question of whether or not the family would have made the same achievements without the program was unanswered.

STUDY DESIGN

The present research was designed to answer this question. The fact that the supervised loaning program had been in operation for many years before this research was initiated and the requirement that an evaluation be completed as soon as possible necessitated utilization of methods which would allow measurement of changes that had already occurred. An *ex post facto* type of design was developed to secure the necessary data, and a system of matching a control group of families with the experimental families was devised to achieve control of variables that may have caused FHA participating families to change. The working hypothesis was that financial assistance combined with skilled guidance increased the social interaction, level of living, and income of participants. Interaction was measured by Chapin's formal organizational participation scale[7] and by an informal interaction index. Level of living was determined with a scale of household items, and income was defined as *gross family earnings* in 1949.

Data in FHA county office records proved inadequate for any penetrating investigation. To overcome this obstacle, a method was devised which made use of the information stored in the memories of participating families. An instrument was constructed for interviewing about both the present and "before," or preloan, time. The year before the loan was selected as the preloan year, and it was decided that families would not be included if they received their loans after 1945.

The instrument for interviewing was pretested in another area on FHA families about which considerable historical data were available. The schedule dealt primarily with topics on which problems of memory would be minimized, making possible a high degree of confidence in the data.

In considering the essential question of how control families were to be selected, it was recognized that experimental families had unique characteristics in addition to that of the program variable. For example, they were not, when receiving a supervised loan, upper-income farm families, so that a randomly selected group of control families from all those in the area would not do. Other commonly used methods, such as having the professional agricultural people name low-income families, might also have been biased.

Since people tend to be acquainted with

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[2] Bureau of Agricultural Economics, USDA (Washington, D. C., July, 1947).

[3] XII:3 (Sept., 1947), pp. 223-227.

[4] For a review of the literature up to 1950, see Walter E. Boek, "Review of the Literature in Rural Rehabilitation" (East Lansing, Mich.: Michigan State College, Social Research Service, 1949; dittoed).

[5] Larson, *Ten Years of Rural Rehabilitation in the United States, op. cit.*, pp. 234-235.

[6] See, for example, Lawrence W. Witt, *Economic Problems of Low Income Farmers in Iowa,* Research Bull. 307 (Ames, Iowa, Oct., 1942); H. E. Larsclere, *A Comparison of Income and Expenses on Farm Security Administration Rehabilitation Farms and Other Farms,* Michigan AES Biennial Report, 1939-40 (East Lansing), pp. 26-27; and Charles P. Loomis and Glen Gresham, "The New Mexican Experiment in Village Rehabilitation," *Applied Anthropology,* II:3 (June, 1943), pp. 13-37.

[7] F. Stuart Chapin, "Social Participation and Social Intelligence," *American Sociological Review,* IV:2 (Apr., 1939), pp. 157-166.

others in similar circumstances, it was felt that the most practical way for securing controls would be to have experimental families name others similar to them at the time they received their loans. Pretesting indicated that this method was feasible.

The primary research design then was as follows: an experimental group of 100 families who had received supervised loans from the FHA were randomly selected from a total of 636 who had received such assistance in Hillsdale County, Michigan. Three families were eliminated because of incomplete records. Of the 97 remaining families, 27 received first loans in 1935-1938, 21 in 1939 or 1940, 23 in 1941 or 1942, and 26 in 1943-1945. These were interviewed during the summer of 1950 and their level of living, organizational participation, informal participation, income, and other data obtained. In addition, they were asked to name other families similar to them one year before they received a loan from the FHA. The study was identified as a community study, and the FHA loan was not mentioned by the interviewer until the latter part of the interview, when opinions were solicited. All prospective control families were listed and those who had received loans removed from the list. The remaining 87 control families were then interviewed in the same manner as the families who had named them.

After data had been secured from both experimental and control families, they were matched on these five variables: preloan organizational participation, husband's schooling, year the family first started farming, preloan level of living, and preloan year. Six types of matching were utilized, starting with the two groups as they were and continuing to become more strict through matching by frequency distributions and then by close and precise pairing.[8] After each type of matching was completed, comparisons were made of the two groups on present organizational participation, level of living, informal participation, and income.

FINDINGS AND CONCLUSIONS

A total of 24 comparisons were made. The results of 18 of the comparisons were in the direction of the hypothesis that the FHA supervised loan would increase the participating families' rating on each of four measures of present status. Five cast doubt on the hypothesis and in one the two groups were equal. All differences were small and only one was statistically significant at the 1-per-cent level; one other difference had a probability of less than .10. These data are in Table 1.

In five out of six comparisons, representing different degrees of precision in matching, the FHA families had increased more than the non-FHA families in their participation in community organizations; but none of the differences were large enough to be statistically significant at the 5-per-cent level. Similarly, in five of the six comparisons on level of living, the FHA families exceeded the non-FHA; and they were equal the other time. Only one of these five differences was statistically significant.

Informal social participation comparisons showed the FHA families to be more active five out of six times, the reverse being true in one comparison. These differences were not statistically significant. Family income comparisons did not follow the same pattern. The FHA families had higher incomes in half of the comparisons and the non-FHA families in the other half. In one instance when the FHA families had higher incomes, the difference approached the 5-per-cent level of significance; none of the other differences were that close to statistical significance.

Although the differences between the experimental and control families were small, a strong tendency is suggested. The 18 differences in favor of the FHA families, although not individually significant, may indicate much more if they are considered together. According to Chapin,[9] and to Peters,[10] a greater degree of confidence can be placed in several test results that are consistent and in the same direction, even though they are not statistically significant, than can be placed in one highly significant test. On this basis, it could be said that the findings provide evidence that the supervised loan program did help the FHA families to increase their social and economic standing in their communities.

Three other types of analysis, which will not be presented in this paper in any detail, also tended to indicate that the FHA program influenced changes in the direction desired by the program administra-

[8] For a discussion of variable selection and matching methods, see Walter E. Boek, "An Examination of a Social Action Program with *Ex Post Facto* Methods as Exhibited in an Evaluation of the Farmers Home Administration" (unpublished Ph.D. dissertation, Michigan State College, East Lansing, 1953), pp. 64-129.

[9] F. Stuart Chapin, *Experimental Designs in Sociological Research* (New York: Harper & Bros., 1947), p. 194.

[10] Charles C. Peters, "Note on a Misconception of Statistical Significance," *American Journal of Sociology*, Vol. 39 (1933), p. 234.

TABLE 1. PARTICIPATION, LEVEL OF LIVING, AND INCOME OF FHA AND CONTROL FAMILIES IN 1950, WITH DIRECTION OF FHA FAMILIES' CHANGE FROM PRELOAN YEAR, FOR SIX LEVELS OF PRECISION IN MATCHING THE TWO GROUPS ON PRELOAN VARIABLES

Kind of comparison	Measures of past-program family status (1950)											
	Organizational participation			Level of living			Informal participation			Gross family income		
	Mean scores		Direction of change*	Mean scores		Direction of change*	Mean scores		Direction of change*	Dollars		Direction of change*
	FHA	Control		FHA	Control		FHA	Control		FHA	Control	
Total groups	16.30	19.50	[1] +	29.85	31.15	[2] 0	54.08	52.71	+	4,104	4,753	−
Total groups matched	19.40	18.00	+	31.35	30.55	+	57.74	52.36	+	4,528	4,928	−
Controls with FHA's who named them	18.75	19.50	[1] +	32.30	31.00	+	54.75	52.96	+	4,950	4,803	+
Controls matched with FHA's who named them	19.20	16.48	+	32.13	29.83	+	55.50	52.54	+	4,925	5,000	−
Closely paired	13.76	14.44	−	29.64	27.08	+	55.40	54.80	+	4,378	4,175	+
Precisely paired	12.80	10.00	+	31.40	24.80	[3] +	48.80	50.40	−	4,533	3,045	[4] +

*The hypothesis was that the FHA families would enhance their status more than the control families during the same period of time. A *plus* (+) means that the data support the hypothesis. A *minus* (−) means the data are contrary to the hypothesis. A *zero* (0) means that both groups changed in the same degree.

[1] Direction of change is in favor of the FHA even though the mean is larger for the control families. This is because the non-FHA mean was also larger in the preloan year, but the difference between the means has been reduced.

[2] No direction because both FHA and control families increased in almost identical amounts from the preloan situation.

[3] Difference between means had a probability of .01 or less.

[4] Difference between means had a probability of between .05 and .10.

tors.[11] A survey of the attitudes of FHA and non-FHA families showed that both groups were, in general, highly favorable toward the program. A survey of attitudes of FHA clients who had left farming for urban employment showed that they also felt they had benefited. A comparison of the social status of FHA families with that of other families in their communities disclosed no evidence that participation in the government loaning program had any adverse effect on social status. The data for this analysis were obtained by having 20 community leaders in eight natural trading areas rate individuals on four aspects of social status, without identification as to whether or not they were FHA clients.

In summary, it can be said that all of the analyses seemed to demonstrate that the Farmers Home Administration was accomplishing its general goal, although many of the favorable differences between its participants and nonparticipants were small and there were a few unfavorable differences. In addition, opinions of both participants and nonparticipants were strongly in favor of this program.

[11] It is expected that these analyses will be published in a Michigan State College AES bulletin.

AN INDEX OF SOCIAL MOBILITY

by Leila Calhoun Deasy†

While the process of social mobility, or movement from one prestige level or "class" to another supposedly is characteristic of American society, social scientists have devoted relatively little attention to developing systematic techniques for assessing the presence or absence of the process in a given population. Most of the studies of mobility which have been reported have compared the occupations of adult males with the occupations of their fathers, and have paid little attention to other factors which might be utilized in determining whether a person or family has been vertically mobile. This paper will present a scheme for assessing the existence of mobility patterns on the basis of three factors —those of occupation, education, and religious affiliation.

The writer has recently completed a study[1] which had two major foci: (*1*) an examination of the background characteristics of two groups of women in a middle-sized city—those who were members of the elite, and those who were peripheral to membership in the elite (using patterns of social participation as the criterion for choosing the two subsamples); and (*2*) an analysis of the verbal responses of these two subsamples concerning the characteristics and behavioral traits of individuals or families which made them eligible or ineligible for acceptance as members of the elite. An additional major methodological interest was that of devising some technique whereby it would be possible systematically to differentiate among those in the total sample who themselves had been socially mobile or nonmobile. In order to do so, an index of social mobility was constructed, based on three sets of data: a comparison of the present occupation of the respondent's husband with his father's usual occupation, a comparison of the formal education of the respondent's husband with his father's formal education, and a comparison of the religious affiliation of the respondent and her husband with the religious affiliation of their two sets of parents. The three factors were chosen for the following reasons:

Occupation: Social scientists have reported in prior studies that occupation is the most useful single index in studying mobility patterns.

Education: The point has often been made that the American educational system is one of the most important channels of social mobility. It is only through the acquisition of college training that an individual can enter most of the prestigeful professions, such as the law, medicine, engineering, and the various scientific fields. Increasingly, business and industrial executives are being drawn from the ranks of young college men who come into an organization in junior executive posts after having completed college courses of study.

Religious Affiliation: The importance of an individual's religious affiliation in "placing" him socially has been indicated in numerous community studies. Liston Pope[2] states that churches not only are adapted to the class divisions existing in American communities, but that churches in the past have intensified these class divisions and will continue to do so.

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This paper is based on research completed while the author was a student at Cornell University.

[1] Leila Calhoun Deasy, "Social Mobility in Northtown" (unpublished Ph.D. dissertation, Cornell University, Ithaca, N. Y., 1953).

[2] Liston Pope, "Religion and the Class Structure," *Annals of the American Academy of Political and Social Science*, Vol. 256 (Mar., 1948), p. 91.

DEFINITIONS AND MEASURES OF MOBILITY

Occupational Mobility.—The Hatt-North scale,[3] which assigns prestige scores to occupations on the basis of findings of a nation-wide study conducted by the National Opinion Research Center, was utilized in rating occupations of respondents' spouses and their fathers. This scale does not provide ratings for all occupations. The occupations pursued by respondents' spouses and their fathers which were not assigned scores on the Hatt-North scale were classified into "situses" and "families" according to the Hatt-North procedure.[4] The writer then assigned scores to these occupations which were as nearly equivalent as possible to the scores that had been assigned to similar occupations on the Hatt-North scale. It was assumed that prestige ratings assigned to occupations by the Hatt-North scale and the writer's adaptation of the Hatt-North scale provide accurate ratings of the occupations classified.

The respondent's husband was considered to be occupationally mobile upward if, on the Hatt-North scale or the writer's adaptation thereof, his occupation was rated four or more points higher than the usual occupation of his father; he was considered to be downwardly mobile if his occupation was rated four or more points lower than the usual occupation of his father.[5]

Educational Mobility.—The respondent's husband was considered to be educationally mobile upward if he had attended college and his father had not attended college, and educationally mobile downward if he had not attended college and his father had.

Religious Mobility.—In the pretest phase of research in the community being studied, it had been indicated by another group of elite women respondents that in this community the "high prestige" religious organizations are the Episcopal, Congregational, and Presbyterian denominations. All other Protestant denominations were said to rate below these three. It was found that the Catholic faith was placed lower on the religious scale of prestige than were all Protestant denominations mentioned, and that membership in the Jewish faith was rated lower than membership in the Catholic faith. (It should be remembered that the sample was composed of persons who were elected because they belonged to social organizations believed to signify membership in the community's "social elite" or positions on the periphery of the "social elite." Membership in those Protestant denominations which other studies have shown to be indicative of very low social prestige was not mentioned by the respondents.)

The religious affiliation of respondents and their husbands was compared to the religious affiliations of their respective sets of parents. A shift from any other Protestant denomination to membership in the Episcopal, Congregational, or Presbyterian denominations was considered as an instance of religious mobility upward. Shifts from membership in the Catholic or Jewish faith to membership in any Protestant denomination were considered to be indicative of religious mobility upward. Conversely, shifts in the opposite direction on the prestige ranking of denominations or faiths were considered evidence of religious mobility downward.

Weighting of the Three Factors.—Occupations were considered to be a more important factor in determining social prestige than were education or religion. Therefore, occupational mobility was arbitrarily assigned a weight of 2, and educational and religious mobility were each assigned weights of 1. If a score of *plus* or *minus* 2 was indicated by the three factors either singly or in combination, a family was considered as being socially mobile upward or downward. *Plus* or *minus* scores on a given factor such as occupation were cancelled out, or partially cancelled out, by mobility in the opposite direction on another factor.

FINDINGS

The procedure described above was utilized in determining whether the one hundred twenty-six women interviewed were members of families of procreation which were socially mobile upward or downward.

[3] Cecil C. North and Paul K. Hatt, "Jobs and Occupations: A Popular Evaluation," *Opinion News*, Sept. 1, 1947, pp. 3-13.

[4] The revised edition of *Alphabetical Index of Occupations and Industries*, U. S. Bureau of the Census, 1930 Census of Population (Washington, D. C.: Government Printing Office, 1950) was used in placing some occupations in the correct "families."

[5] The decision to consider a family "occupationally mobile" *upward or downward*—if the prestige rating of the occupation of the respondent's spouse differed by four or more points from the prestige rating of his father's occupation—was made because, through inspection of raw data on the amount of movement on the occupational scale used, it was found that the most marked "breaks" emerged when the 4-point range was applied. The Hatt-North scale, constructed on the basis of opinions of a small nation-wide sample, assigned exact numerical scores to selected occupations. Its adaptation assigns exact numerical scores on the basis of the writer's evaluations of selected occupations. The distinctions thereby drawn between different occupations are probably too fine.

It was found that 41 per cent were socially mobile upward: 10 per cent were socially mobile upward on all three factors, 9 per cent on the factors of occupation and education, 6 per cent on the factors of occupation and religion, 5 per cent on the factor of occupation alone, and 11 per cent on the factors of education and religion. Five per cent of the sample had been socially mobile downward: 3.5 per cent on the factor of occupation alone and 1.5 per cent on the factors of occupation and education.

LIMITATIONS OF THE INDEX

The index made possible the systematic determination of differences on the variable of social mobility among the cases studied, but several inadequacies of the index are apparent. One weakness relates to the assumption that prestige ratings assigned to occupations as evaluated by persons surveyed in a nation-wide sample in 1947 (and by the investigator in 1952) may be used in assigning scores to occupations followed by persons whose working lives preceded, by one generation, the working lives of the respondents' spouses. It was not possible to arrive at an alternative procedure to the one selected, as there are no comparable prestige ratings of occupations which were based on research conducted prior to that reported by Hatt and North. Alba Edwards' system was considered. It did not meet the needs of the design because one can go no farther with it than classifying occupations into six major categories.[6]

It was not possible to hold age constant in comparing the occupational achievement of the respondent's spouse with the occupation of his father. Thus, if the "usual occupation" reported for the father is that reached at the end of his occupational career, while the occupation of the spouse is that achieved at an early stage in his career, it may be that what is being compared is not occupational mobility but the difference between early and late occupational achievements.

Everyone is aware of the shift that has taken place in the past few decades in the relative numbers of persons following given occupations. We know, for instance, that the percentage of farmers has decreased markedly. Rogoff[7] and others have pointed out the implications of the change in the occupational structure for those who use occupation in studying mobility patterns. The index just described does not include a means of ruling out the shift in the occupational structure as a possible explanation for the results reported.

Since it is the occupational and educational mobility of respondents' husbands which is being evaluated, the specific channel of mobility cannot be determined. For example, instances in which husbands have used the "marriage route" to effect upward mobility are obscured by the use of this instrument.

SUMMARY AND CONCLUSIONS

It was found possible to measure social mobility by comparing background information on the male head of a household with information on his father; occupation, education, and religious affiliation were used as the three crucial variables. Such data are readily ascertainable in interviews or through the use of a questionnaire. While this index was constructed for application to data drawn from a sample of respondents who were upper middle class and upper class in prestige position, it could easily be adapted for application to other segments or with all classes in a community. The Hatt-North scale rates occupations that are both high and low on the prestige scale, and so it could be used without change. Attendance at, or completion of, grade school or high school might be utilized as the criterion of educational achievement if one were working with a sample where college attendance is relatively rare.

Prestige rankings of religious organizations would probably have to be ascertained for the community studied before the scheme of assessment suggested above could be used, since there may be major differences from one community to the next in the prestige rankings of given religious bodies. However, the fact that "religious switching," or shift in membership from a lower prestige church to a higher prestige church, was such a common phenomenon in the group studied by this writer suggests that social scientists may wish systematically to explore further the presence or absence of shifts in religious affiliation among socially mobile persons.

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[6] Alba M. Edwards, *A Social-Economic Grouping of the Gainful Workers of the U. S., 1930* (Washington, D. C.: U. S. Government Printing Office, 1938), pp. 1-6, as revised in *Comparative Occupation Statistics for the U. S., 1870 to 1940* (Wahington, D. C.: U. S. Government Printing Office, 1943), pp. 176-180.

[7] See Natalie Rogoff, "Recent Trends in Urban Occupational Mobility," in Reinhard Bendix and Seymour Martin Lipset, *Class, Status and Power* (Glencoe, Ill.: The Free Press, 1953), pp. 442-454.

APPLIED SOCIOLOGY NOTES

A CASE APPROACH IN TEACHING RURAL COMMUNITY ORGANIZATION

by A. F. Wilden†

Many present-day students are conditioned to a large degree toward their subject-matter offerings by the methods of the physical sciences. They want their subject matter visibly demonstrated to them. They want to see the principles of the classroom tested in the laboratory of experience — if possible, their own experience. No doubt every teacher of rural sociology as he faces his students has sensed this difficulty. Many attempts have been made, and are being made, to resolve it. The writer's efforts have centered around the idea that if one cannot bring the laboratory to the students as is done in the physical sciences, perhaps one can take the students to the laboratory. This has been the basis for the writer's development, through the past decade, of a community case-study method of teaching rural community organization.

CONTRIBUTING BACKGROUNDS

The idea has developed gradually. J. H. Kolb for a long time had been taking students on field trips. Also, during many of the twenty-five years of rural church summer schools held at the University of Wisconsin, students had been taken on visits to communities where the church situation was observed. The writer had assisted in planning and conducting many of these visits.

A very large number of the students in rural community organization were born and reared in New York, Chicago, Milwaukee, and other large cities. They had little actual comprehension of what a small rural community was like. They had little "feeling" for it. It seemed they needed both actual comprehension of, and feeling for, the rural community—if the material of the classroom was to have real meaning to them.

Furthermore, to the instructor, who was vitally interested in the rural community and its general well-being, the presenting of material in the classroom was not merely an academic exercise. He had a background of experience centered in the rural community and was working on such a community development program through the Agricultural Extension Service. It seemed that students could contribute to such a program.

The inspiration was therefore to try to tie these situations and experiences together in terms of some new approach—this personal background of both interest and experience, this need to give the material of the classroom greater meaning and significance through a laboratory in society itself, and this desire to help make communities better communities. It seemed that the three were compatible.

The idea that emerged was to select each year a rural community, within convenient travel distance, for a class laboratory. The idea has actually worked in practice. During recent years, the writer's classes have studied in nine such local community laboratories, one each year—Arena, Mazomanie, Prairie du Sac-Sauk City, Evansville, Lake Mills, Waterloo, Rio, Randolph, and Poynette. They have been located in seven different counties. They have all been within a 50-mile radius of Madison.

The students have responded enthusiastically to the idea. If one can judge by their repeated "testimonials" it has provided some of them with one of their finest learning experiences while at the university. The communities have also responded with enthusiasm to the idea, and there has been no difficulty in securing communities desiring to cooperate in the undertaking. It does, however, take time and considerable careful planning on the part of the instructor.

THE PROCEDURES FOLLOWED

The idea of a community class laboratory is planned and carried out as a supplement to the regular classroom procedures. These procedures include lectures, discussions, committee work, quizzes, and the regular examinations. The intent is to develop the theory, techniques, and principles of rural community organization through the more traditional classroom procedures, and to test these techniques and principles in the community laboratory. The procedure followed in the community divides the work into about three stages—getting ready for the study, gathering and organizing the information, and assisting the community in making use of the information that is gathered and of the suggestions that are made.

The "getting ready" stage involves both preparing the community and preparing

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the class. Since the first two years of this type of experimenting, the initial request for the class study has always come from the community. It is always carried on in cooperation with some kind of sponsoring community-wide committee or organization. Procedures must be outlined in some detail and some of the limitations as well as possible advantages of the study pointed out. Preparing the class is somewhat easier, because it is developed as a regular part of the class routine. Nevertheless, much explanation is necessary as to how the study will be carried out and how it will fit into the conventional class routine.

The first step in gathering the information is for the class as a whole to make a field trip to the community. The afternoon is devoted to viewing the physical aspects of the community. The evening is given over to a mass interview in which selected leaders in the community tell about the community as they see it. Getting acquainted is an important part of the occasion, and the students are urged to take a good set of notes. The way people like to tell students about their community is impressive, but, of course, they are inclined in a public meeting to stress only the nice things. Information about the other side has to be gathered later.

The next step is to divide the students into study committees. According to their developing professional interests — such as agricultural extension work, teaching or school administration, recreation, and public health nursing—the students choose their committees. There are always a few, usually sociology majors, concerned with the development of the community as a whole. These committees then gather all the information about the community that they can, in their respective fields. They gather it from secondary sources, through interviews with representatives of state and county agencies, through interviews with local people, and through mail questionnaires. They also get information as to what the authorities in the fields consider the desirable type of accomplishment in such a community. The instructor gives considerable time to advising these committees. This information gathered serves as a basis, first, for an individual report from each student, and later as a basis for committee reports.

The final stage is that of assisting the community to make use of the information that is gathered and the suggestions that are made. This, of course, is at the heart of the subject matter of the course. Proposals that serve as a basis for class discussions are made by the various committees. For example, just how should a community go about establishing a clinic, or introducing a zoning program, or setting up a community recreation program? Selected student spokesmen then present findings and suggestions on procedures to the community in public meeting. The experience has been that the community always asks for this presentation, and invariably such a meeting is well attended. The class instructor serves as panel chairman or discussion moderator, as the case may be. Needless to say, this is invariably a very impressive meeting, both to the community and to the students who take part.

Following this meeting, a report is made to the community in written form. Some of these reports have been typed, some mimeographed, and some printed; in recent years they have been published as a series of articles in the local newspaper. The reports serve as the basis for study and discussions at many organization meetings, at specially called meetings, and in governmental bodies. There are repeated calls to the instructor or to the county extension office for additional help in interpreting a proposal or in suggesting how it may be put into practice. This is the point where the class function ceases and the Extension Service picks up, since this entire procedure has been worked out from the beginning with the active help and cooperation of the county extension office. It is the point where the many interested agencies—those that have been consulted in the study process and are interested in getting their program into action in the community—take over. Requests for help and assistance from county and state agencies are greatly stimulated by the class community-study idea.

SOME THINGS LEARNED

As far as this particular class is concerned, the community case-study idea is now beyond the experimental stage. Its usefulness as a teaching technique has been demonstrated. However, some discoveries have been made and some problems uncovered:

1. Such a case-study approach is an effective way to vitalize teaching and place subject matter—and students—in a realistic situation. It gives meaning to abstract thinking.
2. The more mature and able students are inclined to take this course for the experience that such a class study affords them. On the other hand, less able

students — especially undergraduates — are discouraged from taking it because of the unusual and personal nature of the class work involved. (Obviously, this is an elective and not a required course.)

3. A better job could be done in the community if the period of study were a year instead of a single semester. More time would also make possible more complete and effective use of local study committees. However, there is no difficulty in interpreting this limitation to the community. The communities do appreciate — and respond to — the stimulus such a study affords them, even though it runs for only a single semester.
4. It usually takes time, however, for things to happen in the community. Generally a community takes about two years to assimilate the findings and proposals and to make these their own. On major issues, this time lapse seems to be essential to most effective local community action.
5. Many of the things that result are modifications of the proposals made by the class group. Usually, however, they are then more indigenous to the life and culture of the community than the original class proposal.
6. If there is a crisis situation in the community, it is essential that the students not become partisan. Continued emphasis must be given to their role as objective analysts and as students of society.
7. Such a case study approach takes more than the ordinary amount of time and involves considerable careful planning on the part of the instructor.
8. Basically, this is a learning experience for students. It is not a research study, in intention or in practice.

SOME SUGGESTIONS FOR RURAL SOCIOLOGISTS BY PROFESSIONAL PEOPLE SERVING RURAL COMMUNITIES

by William McKinley Robinson†

"In your work, do you feel the need for more assistance than now available to you from rural sociologists?" To thirty selected professional workers in, or for, rural communities this question was directed; and from twenty-six of them replies were received. Represented in the group were those working in, or preparing others to work in, the fields of religion, education, library service, social welfare, recreation, character-building, health, community service, newspaper and magazine publishing, and the foundations.

Anyone engaged in or considering a life work in research in rural sociology would be gratified with the responses. Some of those replying teach rural sociology or engage in field studies, not as their primary interest, but rather as a buttress to their chief work. All are familiar with rural sociology as such, and are therefore in position to answer the question advisedly, at least as far as their own needs are concerned.

From the very nature of their interest in the field, those replying are concerned about research directed to specific ends. A number listed topics for research in which the rural sociologist would only cooperate, representatives of other disciplines or professions carrying the major responsibility. A foundation executive stated very well this need: "Actually I think we have only begun to find our place in rural sociological research. Almost every area of investigation has social implications, and one of our major responsibilities is to bring more sociological research into all our research projects, rather than perhaps, as in so many other instances, setting up individual projects in rural sociology. There are of course some problems that need special investigation from a strictly sociological point of view, but other fields can certainly benefit by a better understanding of such areas as diffusion of ideas and decision-making motivation."

Several shared the feeling that rural sociology has been too largely concerned with areas of major interest to land-grant colleges. A rural sociologist on the staff of a school of theology commented, "I think rural sociology has suffered from the dominance of the land-grant-college teaching, research, and extension personnel in its development. The selection of research problems and the ignoring of such fields as the church has been due to preoccupation of the land-grant colleges and the American doctrine of the separation of state and church which ought not to invade and limit our research thinking. The autonomy of rural sociology hinges upon its emancipation from the dictatorship of the land-grant system." One should hasten to add that everyone realizes that were it not for the land-grant colleges, there would be little rural sociological material available. They

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have given a taste of something of which a need for more is now being felt.

To be sure, there is a dilemma here. Just as those not in land-grant colleges suspect that rural sociologists have as yet no certain or established position in those institutions and are also struggling for unqualified recognition among sociologists, so do those in other colleges and universities have a continuing battle to maintain any consideration whatsoever for rural life and institutions. There is little or no margin of energy, time, or funds left over for research. Who is to carry on the needed research, and how is it to be financed? To date, the financing has depended for the most part upon the private foundations, which compared with other agencies have been remarkably generous in response to rural appeals, or upon funds forthcoming under the impetus of national concern as expressed in the 1908 Commission on Country Life or the Hill-Burton Hospital Act.

An associate editor of a farmers' magazine came up with a suggestion worthy of further study: "In my job of searching for story ideas in rural sociology, I paw through thousands of pages of verbose writing that frankly I feel is a cover-up of a sad shortage of ideas, or as you suggest, a shortage of research data. I wish that sociology texts might be edited by a disciple of Dr. Rudolph Flesch or someone in that field. I believe texts stripped down to clean, sharp writing might make their lack of data immediately apparent, and thereby sell your idea of more research."

For greater readability in textbooks in rural sociology, the present writer adds his plea to those of several other teachers. The books of yesteryear by Warren H. Wilson and Charles J. Galpin, before so many data were available, and the more recent book of Charles Hoffer in which not too many data were included were more effective for the average student. There certainly is need for textbooks of the present type; but there is also need for textbooks, scientifically sound to be sure, geared to the undergraduate student who has no major interest in the field. Incidentally, students seem to enjoy and appreciate the pictures and attractive make-up of some of the present books.

The concern here is not with the question propounded by Glenn Frank years ago at the American Country Life Association meeting at the University of Wisconsin, one to which he gave major attention in many articles and talks, as to how to bridge the gap between the acquisition of scientific knowledge and its practical use. The present focus is on the go-betweens or interpreters, and it is they who are asking for the facts. Incidentally, they, the librarians in particular, are also asking the rural sociologists for assistance in finding more effective means of communication, or means of using facts. Several pointed out that they would appreciate up-to-date studies of the relative effectiveness of the several media of communication, plus studies of the factors involved in rural peoples' judgments as to the reliability of information.

As the sociologist has aided extension workers in analyses of the most effective means of achieving their ends, so would others appreciate aid. "Why do communities with adequate financial resources to support complete health service frequently fail to do so?" asks a physician with responsibilities in the public health program of a foundation. "Is this failure due more often to ignorance as to what health service has to offer, or to the low social value placed on human health by those responsible for the use of community resources? If the latter, what are the means available for moving health up the scale of relative values community-wise?"

The concept of community and the structure of the community concerned quite a number. To the old neighborhood-community concept, the community-minded editor of a daily newspaper in a middle-sized midwestern city would add that of the greater community made up of complementary and cooperating—but more or less self-sufficient—communities. Is the old cut-off at 2,500 in population meaningful today, or should it be raised to 4,000, 5,000, or 10,000; or should some other criteria for determination be used? The school people were particularly concerned with the community, being sensitized to its importance because of the present-day stress on the community school, as well as because of the school-district reorganization movement and its repercussions. Has it been scientifically verified that the well-being of a rural neighborhood or rural community is threatened by the removal of the school from its immediate boundaries? Is the resistance to reorganization based on fundamental considerations to which more deference should be shown?

Those concerned with social welfare, recreation, libraries, character-building, and the arts shared an interest in continuing research in order to evaluate the effect of the changing scene. What effect has social security had upon a mutually patterned people? How effective are urban-dominated agencies — Y.M.C.A., Boy Scouts, P.-T.A.,

League of Women Voters, etc.—in rural communities? What are the conflicts and influences resulting from the dispersing of urban-employed people into open country and small towns; or of the urban employment of lifetime rural residents? A staff member of the Children's Bureau, with responsibility for child labor, finds inadequate information on the families and mores of hired farm laborers, particularly migrants. Cultural aspects, inherent values of the small community, the significance of rural values to the total social system, and attention to older people were noted as areas neglected. A question on which there might be biased judgment because of land-grant college influence was that of the optimum number of farm families necessary for the continuance of rural values—social rather than economic.

Repeatedly there were questions as to the concepts and functioning of rural government under changing conditions. Chapters on government in present textbooks would seem to be among the weakest. Here quite as conspicuously as in religion, education, or social welfare the rural sociologist has too much reflected prevailing philosophies and practices of the professional workers, rather than the interaction of these philosophies and practices with those of rural people. Furthermore, these often have been the prevailing philosophies and practices of dominant groups, and there has been little allowance for significant variations which latter may be dominant within certain groups, communities, or areas.

What effect have the farm policies of recent years had upon the traditional thinking of farm people? Are cooperatives really serving a social as well as an economic purpose? (The latter is from a man who has divided his time between the promotion of cooperatives and the training of rural ministers.) What is the optimum size for a rural church? What is the relation of the size and denomination, or lack of denomination, to the status of church members in a rural community? What of sociological significance is happening in the rural-urban fringe? Since no community is typical, how can general sociological data be made meaningful in terms of a particular community? To make this latter even more specific, a sociologist at a state teachers college asks what help the rural sociologist has to give in the placement of rural teachers and in the guidance of teachers in adapting themselves to the norms of a particular community.

It is not possible to list all of the topics suggested, nor to include all the quotations one would like. In relation to his own interest, a sociologist at a church-related college expresses the feeling which characterized all the replies: "I do believe that both the rural sociology books and rural research directors are missing an important area by not studying religion at the grass roots and finding out the mutual need of religious leaders and research men for each other. The National Catholic Rural Life Conference, for example, could supply research-minded workers with the names of several priests in the field, who, if visited with, could suggest many research projects. In return, religious leaders have a great need for information they can use to understand and serve their people better."

Suffice it to say, there is evidence that opportunity awaits if the proper persons—administrators as well as rural sociologists—and adequate financing can be brought together. Purists will raise their eyebrows at some of the suggestions given here. But they might consider the following statement in the reply sent in by a well-known retired professor of philosophy, now freelancing in community service and adult education for rural communities: "It will be said that sound research can have no point of view. As a fact, all research has a point of view depending on the objectives and frame of reference of those doing the research."

RURAL RECONSTRUCTION IN PRE-COMMUNIST CHINA

by Jen-chi Chang†

Pre-Communist China had a population of 450,000,000. Six-sevenths of the people of China proper lived in the fertile plains that made up only one-third of the land. Although since ancient times China had been famed for its great cities—with six listed as having over one million population—four-fifths of the Chinese lived by farming. The average farm was about three and one-half acres in size.

China was trying very hard to better the condition of her people and to take her place in the international family of nations in the modern world. Reconstruction was a means to reach that end; and the rural area was the major territory in which to apply the means.

To popularize education is the prerequisite for any kind of rural reconstruction. Education in China was available only to a few million inhabitants. The government

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TABLE 1. GROWTH OF PUBLIC EDUCATION IN CHINA, 1940-1946

School year	Number of			
	Schools	Classes	Pupils	Graduates
1940-41	220,213	382,971	13,545,837	2,787,923
1941-42	224,707	424,227	15,058,837	2,952,148
1942-43	258,283	505,371	17,721,103	3,308,307
1943-44	273,433	530,993	18,602,239	3,798,116
1944-45	254,377	513,969	17,221,814	3,871,688
1945-46	269,937	680,298	21,831,898	4,688,606

Source: Ministry of Education. Quoted from *China Yearbook, 1950*, compiled by the China Handbook Editorial Board (New York: Rockport, 1950), p. 688.

was, however, steadily seeking to make education available to the general population. Consequently, a Five-Year Plan was adopted at the National Conference on People's Education, in March, 1940. There was a noticeable dissemination of education as a result of the plan.

Table 1 shows the progress made in public education, from 1940 to 1946.

The progress made from 1936 to 1946 toward reducing China's illiteracy is shown in Table 2.

TABLE 2. LITERACY STATISTICS OF CHINA, 1936-1946

School year	Illiterates	Literates	
	Number	*Number*	*Per cent*
1936-37	286,332,536	87,572,464	23.4
1942-43	222,734,721	151,170,279	40.4
1943-44	206,037,801	167,867,199	44.9
1944-45	190,931,081	182,873,919	48.9
1945-46	175,209,934	198,695,066	53.1

Source: Ministry of Education. Quoted from *China Yearbook, 1950*, compiled by the China Handbook Editorial Board (New York: Rockport, 1950), p. 639.

THE NEED FOR AND NATURE OF THE RURAL EDUCATION MOVEMENT

Realizing that educated persons should go back to the people to help the majority to be educated, educators started a rural education movement. Actually there were several different but closely related and similarly named movements, going under the designations "rural reconstruction," "rural rehabilitation," "rural welfare," "rural service," "mass education," "popular education," and "rural education." The slightly differing emphases are indicated by the variations in the names. Basically, each service carried on almost the same kind of work. Each of them was centered in the people of the whole community. Since illiteracy, poverty, disease, and misgovernment were China's fundamental problems, there was need for a coördinated system of people's education, people's livelihood, and people's government.[1]

With very few exceptions, the secondary schools and higher educational institutions were located in cities. Hence, the great majority of the inhabitants of rural areas had the opportunity to receive only the first four years of schooling in their own localities. Some did not have even this basic education provided. The highest education available for those having a school consisted of a two-year course (fifth and sixth grades) in addition to the basic four years. Although there was gradual improvement, there was an acute need for further educational and social development.

Four problems of rural education, as described by Chuang, were as follows:[2]

1. *Financial difficulty.*—Sufficient funds were usually lacking in rural areas. Villagers were largely farmers. Although they worked hard all of the year on the farm, they had little remuneration for their efforts and therefore had little money for supporting schools. The result was extremely inadequate school buildings and equipment and poorly prepared teachers, competent teachers not being attracted to rural areas.

2. *Lack of awareness of need.*—The rural people did not always realize the need for education. They usually learned their trade from their elders. Since verbal instead of written communication was

[1] P. S. Buck, "Tell the People—Talks with James Yen about the Mass Education Movement," *Asia and the Americans*, Vol. XLV, No. 1 (Jan., 1945), p. 52.

[2] T. S. Chuang, *Rural Rehabilitation and Rural Education* (in Chinese; Shanghai: Chung Hua Book Co., 1930), pp. 4-6.

common among them, they felt no urgent need for reading and writing, nor did they see any necessity to communicate with the outside world.

Indifference was even greater among females. They might work just as hard as males, but they did not think that they were equal to men, especially in the privilege of receiving education. Few girls were sent to schools. They usually started schooling later than boys and discontinued earlier.

3. *Old-style or clan school.*—China was built upon a family system. Some money was reserved in a clan for educating children. The nature of the school depended upon the ruling of the clan head. The school might be a good one if the clan head was interested in education. He might enforce a strict attendance and encourage learning.

4. *Half-hearted teachers.*—Since the pay for teachers in rural schools was not sufficient, good teachers would hardly accept positions in rural schools. Thus, the rural teacher did not have good training; moreover, he was not interested in in-service training. He usually did not manifest whole-hearted interest in his work.

SOME LEADERS OF THE MOVEMENT

Though the foregoing section paints a dark picture, there is no exaggeration of the dire need for rural education. Many educators had realized the deficiency and had sought its remedy. Y. C. James Yen clearly visualized the need for advancement and worked assiduously toward realization of the goal. Yen and others, when they were in France during World War I serving their fellow countrymen in the work corps, felt the great need of education for the common Chinese. They tried to simplify the system of reading and writing by selecting the characters most useful to various groups. One thousand characters were selected for the use of farmers, a somewhat different thousand for laborers, and so forth. The Mass Education Movement was organized. Tinghsien was the place chosen as an experimental station. Four kinds of education were advocated—art, livelihood, health, and civic. Three channels were to be used for such education—the home, the school, and society.[3]

Heng-chieh Tao, another leader of the movement, established the Hsiao Chuang School near Nanking. Tao emphasized that *teaching, learning,* and *doing* go together. The organization of Hsiao Chuang School indicated that the sphere of education was extended to include the whole rural community. Later, in order to reach more persons, a "little teacher" system was adopted. It was a movement for school children to go out to teach other children and adults. The Yu Tsai School, begun later, used this system with great success.[4]

Both Yen and Tao were educated in the United States. Yen studied at Yale and Princeton. Tao obtained his progressive ideas of education at the University of Illinois and from John Dewey at Columbia University.

Shantung had another center for rural education, under the leadership of S. M. Liang. Liang felt that rural education should start from the cultural background of the Chinese themselves. Each village had a school, and there all rural rehabilitation was centered. The work began in Honan Province and moved to Shantung because of an invitation of the governor. Tsouping and Hotse also served as two experimental counties (*hsien*) under this movement.

Chung Hua Vocational Education Association in Shanghai added a rural service department. At one time, there were fifteen projects for rural service underway. The activities were not limited to Shanghai. There was a school in each village. The principal of the school was responsible not only for education but also for all social welfare in the community. The association cooperated with each community for a period of six years during the experimental stage. The local people, it was expected, should be able then to take over the whole work as their own enterprise.[5]

THE WORK OF UNIVERSITIES AND COLLEGES

Universities began to extend their interests to the country, too. National Central University, University of Nanking, Cheeloo University, and Yenching University had either agricultural experimental stations or rural projects in general, or both. National Central University, for instance, initiated a similar program during the 1920's (at that time the university was known as Nanking Higher Normal School).

The College of Agriculture of the National Central University had an extension

[3] Y. S. Djang and S. L. Hsu (eds.), *National Convocation of Rural Rehabilitation,* Vol. I (in Chinese; Shanghai: Chung Hua Book Co., 1934), pp. 59-61.

[4] G. F. Winfield, *China: The Land and the People* (New York: William Sloane Association, 1948), p. 39.

[5] Djang and Hsu, *op. cit.,* Vol. I, p. 39.

department which undertook developmental work in rural areas. Distribution of good seeds is an example of what was done. The college also operated various classes to meet rural needs. A women's silkworm-industry class was held twice. It was a two-year course for persons who had at least a junior middle-school education. A one-year course of silkworm-industry training was requested by the Kiangning Hsien Government. Another one-year course, on cotton, was held at the request of the National Economic Council's Cotton Control Committee.[6]

The College of Agriculture and Forestry of the University of Nanking had a rural education department. Its purpose was to train agricultural teachers for the middle schools, teachers for the normal schools, and leaders for rural rehabilitation. There was also a two-year short course with emphasis on the practical aspects of agriculture. Students in that course were required to study in class and to work on the farm.

The extension work of the college reached nine provinces including more than 100 *hsien*. In 1930, the college began to cooperate with the Central Agricultural Extension Committee by establishing Wu Kiang Agricultural Experimental Station. Cotton seeds, wheat, Indian corn, and silkworm eggs were distributed through the station.[7]

Nung Shan Rural Experimental Station commenced its work in 1927 largely under the auspices of the Theological Seminary of Cheeloo University. In 1932, this university added a rural service department. Nung Shan work became a part of the university program as a whole. The work was divided into health, home economics, education, and economics sections, but education was the center of the whole work. Village children were encouraged to go to school. At first, there were three schools run by the station. Mass education classes for adults were conducted from time to time, and three classes were especially provided for women. Popular lectures were given occasionally. A library was ready to serve rural teachers, students, and literate farmers and villagers.[8]

At Yenching University, the Sociology Department took the responsibility for rural service. In 1929, a social survey was made at Ching Ho Cheng. In 1931, Ching Ho Cheng became a social experimental station. In 1934, a rural reconstrction department was added to the university curriculum. The department had to integrate its work with that of other college departments, such as sociology, economics, political science, education, home economics, chemistry, and biology. There was cooperation among all the specified departments. Ching Ho's work was divided into social service, agricultural economics, rural health, and rural survey. The work covered forty villages.[9]

There were many government and private agencies for rural welfare. According to a Ministry of Industry survey, in 1935, there were already more than 600 organizations which had started to work for rural welfare, and 1,000 places having experimental stations.[10] There was one common aim — to carry education to rural areas. The education was for male and female children and adults, and it extended to the entire community instead of remaining inside the walls of the school, as in the past.

KIANGSI RURAL WELFARE SERVICE

In 1933, the national government realized that there was a need for rural rehabilitation in Kiangsi Province. Under the direction of the National Economic Council, ten rural welfare centers were set up in Kiangsi Province with a head office in Nanchang, provincial capital. A fund of $350,000 was allocated for the centers.

The work in each center was carried out in four phases—education, agriculture, cooperatives, and health. Later, home industry was added as the fifth phase of the work. One or more supervisors were placed in charge of each branch of the work. The executive secretary served as the coördinator of the work and the representative of the center, and had an assistant secretary for general business.

The educational work in each center was headed by a team of three, in addition to school teachers and other related workers. There was at least one woman supervisor among the three. This was designed to make special provision for the needs of women and children. There was an agreement with the local government to use a centrally located local primary school as a part of the educational work. Usually a six-grade primary school with a kindergarten was utilized. A daily nursery

[6] *Ibid.*, Vol. II, p. 106.
[7] *Ibid.*, Vol. II, p. 113.
[8] W. Y. Kiang and S. M. Liang (eds.), *National Convocation of Rural Rehabilitation*, Vol. III (in Chinese; Shanghai: Chung Hua Book Co., 1937), pp. 306-307.
[9] Djang and Hsu, *op. cit.*, Vol. II, pp. 122-124.
[10] *Ibid.*, Vol. II, p. 19.

operated during the farmers' busy season. Adult classes were conducted separately for men and women. Other educational activities were provided, according to the needs of the locality.

The Rural Education Movement covered various aspects of community life, thereby enriching the lives of the members of the community and leading toward the educational and social development of rural areas.

CONCLUSION

Rural reconstruction, a popular movement in Nationalist China at one time, was undertaken by government and private agencies. Both realized that education should be the basis for rural reconstruction. Nevertheless, the program was not always accepted by local people, because it was somewhat different from other social institutions. It was even opposed by some local governments. Gradually, it was assimilated and produced some beneficial results. However, it was suspended when the Communists took over China.

By no means have the whole theory and spirit of rural reconstruction died out in the present Communist China. Some of the reconstruction practices in Communist China can be traced to the rural reconstruction movement in the past. Communist China recognizes some of the past leaders in rural reconstruction. The high esteem of the Communists for the late Heng-chieh Tao is an example. In fact, most of the people who participated in the movement in the past are still in Communist China. Undoubtedly some of them have joined the Communist government and are engaged in similar work. It is true, nevertheless, that Communist China uses a different method to carry out its rural reconstruction program.

BOOK REVIEWS

Edited by Eugene A. Wilkening

American Society: Urban and Rural Patterns. By Edmund deS. Brunner and Wilbur C. Hallenbeck. New York: Harper and Brothers, 1955. Pp. xviii + 601. $6.00.

This book has a tantalizing title which beckons one to look inside and see what it's all about. So I've looked, and found that the central theme is the operation and development of American communities, especially villages, county seats and trading centers, suburban settlements, and metropolitan centers.

Part I explores the time, space, and cultural boundaries within which our communities operate.

Part II is concerned with our expanding human relations, from families to neighborhoods and communities.

Part III covers the kinds and characteristics of our communities, from simple settlements to metropolitan areas.

Part IV stresses the function and structure of our communities, and their social institutions through which things get done.

Part V deals with community development in our time, in terms of problems and methods used in "soft-pedaling" or solving them.

These five parts are composed of twenty-six galloping chapters of Brunner-type sparkling prose, thirty-one charts and maps, forty-one pictures, and thirty-six statistical tables. At the end of each chapter is a list of projects for research and discussion, with supplementary references.

The book as a whole is quite attractive, well written, and readable. However, there are some flaws in the form of inconsistent statements, vague definitions, and unexpected omissions such as the lack of reference to various studies made by other social scientists. The authors say in one place that families always live in communities, and in another they imply that families may be outside communities. The authors recognize clearly the expanding neighborhood concept, but do not give a definition quite definitive enough to satisfy this reviewer. To put it tersely, a neighborhood is a relatively small locality group of families and households with a name and neighboring—be it rural or urban. And a rural neighborhood is not always outside the municipal boundaries of a village or town, as stated on page 134; for some incorporated villages and towns are wholly rural and contain several neighborhoods. Other items such as these could be mentioned, but perhaps they are of minor significance compared with the many items which are correct and presented with clarity, and which should be of great value to all of us and to our students who are interested in community development.

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American Farm Life. By Lowry Nelson. Cambridge, Mass.: Harvard University Press, 1954. Pp. 192. $3.75.

This volume—one of the Library of Congress series in American Civilization—gives a clear account of major changes in agriculture and rural organization in the United States and a faithful account of the status of and prospects for farm life at the mid-century. The key to understanding this book is found in a recognition of the increasing interdependence of farmers as an occupational group and other segments of our society, many facets of which are described in other volumes of this series.

The new farmer uses the best available agricultural technology, communication, and organization. He maintains to a marked degree his privacy in living; he has the conveniences of the city; he lives well in the country. While farms become fewer and farm families smaller, rural institutions continue to merge with those of urban areas. Occupationally, more farmers are becoming nonfarm or urban. Farm incomes have not equalled city incomes, and in a commercial economy the farmer tends to lose his independence and, in many instances, his economic security. In this new situation the farmer depends more and more upon nation-wide organizations to protect his interests at local, state, and national levels. In both production and marketing he has developed cooperative associations on a self-help basis, to obtain services for better living and maintain his income from farming. As he becomes more like his urban brothers, he depends on government aid to maintain long-time stability in the farming occupation and on programs like social security which have become an accepted part of the urban way of life.

Emphasis is given in the book to the basic importance of the farm family and to

the church and the school which have been the cornerstones of rural life, but which now must be enlarged and re-fashioned to fit into the rapid expansion of rural life. Among these institutions that serve the farmer, none other is more recessive than local government; and in no other area is change in organization so badly needed. Women still have an exalted place on the farm as homemaker, wife, and mother. Beyond that there is little occupational opportunity for females on the farm, and at an early age they migrate in large numbers to urban centers where they can find work.

The problem of smallness of units for local government, schools, and churches is accentuated by continuing improvement in communication and by reduction in the number of farms and in the farming population. Farmers and urbanites are coming to live together in suburban areas and increasingly in those rural areas that are within driving distance of sources of urban employment.

The author has selected his facts carefully and presented them dispassionately and objectively. His mature wisdom is shown by his interpretation of changes and by the challenge of his presentation of the more pressing problems of farm life in the United States at the mid-century.

This book is presented at the high-school level and from the point of view of a rural sociologist. It will tax the ability of urban teachers and leaders to make this book thoroughly understandable to, and appreciated by, urban dwellers. Yet one cannot escape the conclusion that the book contains important facts concerning farm life and its development which are basic for both rural and urban students and practitioners everywhere.

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The Sociology of Rural Life. (Third edition.) By T. Lynn Smith. New York: Harper & Brothers, 1953. Pp. xxiv + 680. $6.00.

The third edition of Smith's book differs from the revised edition published in 1947 in the following major ways: First, data from the 1950 census and other recent publications have been included in the new book, although not all of the 1950 census reports had been released when this revision was completed. Second, short descriptions of the work of rural sociologists and of developments in the discipline since World War II have been added at the end of chapter 1. Third, parts of chapter 4 in the former edition—those sections dealing with marital condition, educational status, and religious composition—have been incorporated into chapters 17, 18, and 19, respectively. Fourth, chapter 14, "Systems of Agriculture," is an addition.

The documentary materials given in chapter 14 are new and scholarly. However, T. Lynn Smith is not the first, as he indicates, to introduce and develop this subject in rural sociology texts. Both John M. Gillette and Carl C. Taylor presented the development of agriculture in their books, entitled *Rural Sociology*, published in 1936 and 1933, respectively.

The author states in three places in the present book (pp. 41, 76, and 129) that, in 1950, aged persons were relatively more numerous in rural areas than in the urban areas or in the general population, and that this is one of the reasons why changes in rural culture are slower. According to the old urban definition, there is a higher proportion of aged persons (65 years old and over) in the urban than in the rural population—8.34 per cent as compared with 7.85 per cent. However, if the new urban definition is used, the rural population has a greater proportion of aged persons than does the urban population—8.19 as compared with 8.11 per cent, respectively. To take such a slight percentage difference—especially when the rural percentage is lower under one definition and higher under the other—and stress it as a factor in explaining the slowness of change in rural culture is questionable.

It is unfortunate that rural sociology texts are written in such a fashion that a revision is necessary after every census. Rural sociology should be far enough advanced that certain generalizations and principles could be stated which would hold true from one census to the next.

Very few students can read readily the mass of statistical data and then integrate them with the charts and tables. The quantitative data could be drastically reduced. More major headings need to be used to emphasize the main principles and generalizations. Both changes would add clarity and simplicity to the book. Students find that the exhaustive and carefully prepared footnote references are not only useless but somewhat distracting. A fairly complete summary at the end of each chapter would be helpful. Another improvement would involve placing the study questions and suggested readings at the end of each chapter rather than at the end of the book.

Although the book has some shortcomings, Smith has attempted to analyze rural

life objectively and to present the major research findings. No other rural sociology text in print compares and contrasts rural and urban life and presents the forms of settlement and land divisions as systematically as does this one.

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Schools in Transition. Edited by Robin M. Williams, Jr. and Margaret W. Ryan. Chapel Hill: The University of North Carolina Press, 1954. Pp. xiii + 272. $3.00.

Robin Williams and Margaret Ryan have performed a valuable service in editing and bringing together in a single volume these case studies of public school desegregation in twenty-four "border state" communities. The book is one of several projected volumes summarizing the studies on which Ashmore's *The Negro and the Schools* is based. The research was supported by the Fund for the Advancement of Education, and the basic studies are those of forty-five different scholars.

The communities studied are located in six states, all outside the South proper; for the most part the desegregation was recent but prior to the 1954 decision of the Supreme Court. In Ohio, Indiana, Illinois, and New Jersey, the changes came as a result of new state laws which made desegregation mandatory. In Arizona and New Mexico, the desegregation occurred after state laws were changed to permit—but not require—the abolition of compulsory segregation.

The book makes interesting and informative reading. Many persons who have not looked into such matters in detail will probably be surprised at the extent of segregration and discrimination which has existed or still exists in these non-southern states and communities. For example, Cincinnati, which has a large Negro population and has long had an "integrated" school system, had never (up until the book went to press) employed a Negro high-school teacher. Also, the wide variation in practices and in desegregation procedures and reactions within states and between nearby communities is impressive.

The case reports are presented "objectively," in that there is no apparent effort to emphasize either the favorable or the unfavorable aspects of the desegregation experience in each community. Also, there is relatively little interpretation within the case reports themselves. The accounts are lacking in uniformity of content and organization, so that any systematic comparison of communities is impossible. This may in part result from editorial decisions about emphasis; but no doubt the principal reason was a lack of comparability of the basic field documents.

At some points the reader may wish there had been more editing, both to increase comparability and to make main points stand out more clearly. Two introductory chapters and a final chapter serve to tie the case studies together and to summarize, but there are relatively few generalizations. In view of the nature of the field reports and the limited number of cases, this was probably wise. A curious oversight of the editors or publisher is the failure to label the six appendices, which are excerpts from laws in several of the states. In some of these it is not possible even to identify from which state the quoted law comes, and the only way to get any meaning out of the appendix is to find the text reference and determine the state and time of the law from the context.

In a sense, the book was out-of-date before it was published—that is, many additional communities have begun desegregation since the 1954 Court decision, and these are in areas where segregation had been more complete and customs more "southern." It would be highly desirable to have these and future experiences similarly reported, but this in no wise detracts from the value of the present volume. Such findings as the importance of careful planning, clear policy, and decisive action will certainly apply to situations further South, as will also that of the great personal influence wielded by key community leaders and school administrators. The finding that "public school desegregation or integration is only loosely correlated with the attitudes or prejudices of the population" is one of the most provocative and further emphasizes the role of the school administrators and policy makers.

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Voting. By Bernard R. Berelson, Paul F. Lazarsfeld, and William N. McPhee. Chicago: The University of Chicago Press, 1954. Pp. xix + 395. $7.50.

There is but fleeting reference to anything specifically rural in this book. But the rural sociologist who is concerned with such areas as participation, institutional behavior (family, religious, and political), social class, leadership, or values and opinions will find much of interest in *Voting.* The student of research methods and the

seeker of generalizations about man's social behavior will also find a contribution in this work.

The subtitle, "A Study of Opinion Formation in a Presidential Campaign," is a clue to the central focus of *Voting*. More specifically, this is a report on the Elmira (New York) study conducted during the 1948 presidential election with the support of fifteen universities, foundations, organizations, and commercial concerns. The Elmira study is in a sense a part of a cumulative enterprise—starting with the 1940 Erie County (Ohio) study published under the title *The People's Choice*—designed to give a better understanding of the processes of democratic elections.

The panel method of repeated interviews with the same respondents — selected by area probability sampling — was used to make possible an analysis of change in political preferences over time. The first wave of interviews in June numbered 1,029. Successive waves of interviews were conducted in August, October (before election), and November (after election). Panel mortality, including characteristics of missed cases, is analyzed in Appendix C.

Interpretation and understanding of panel data, including the dynamic aspects, are facilitated by knowledge of the community structure and function. Elmira has about 50,000 population, is independent of any large metropolitan area, is considered socially and economically stable, has industrial diversity, includes some ethnic minorities, and has had about a 40-per-cent Democratic vote in recent elections.

Two major themes—the "social" and the "political"—are developed in a parallel manner throughout the book. Two brief introductory chapters cover first the social and historical background of Elmira, then the political background. Under the general heading of "social processes" are five chapters which deal, respectively, with social institutions (showing particularly the political role of labor unions), social differentiation (showing the relation of political behavior to social class and ethnic and religious minorities), social perception (dealing with group voting norms), social process (showing the influence of primary group association on political behavior), and social effects of the presidential campaign (including voting changes by social units such as primary groups and class strata and changes by time units, including generations).

These five chapters are paralleled by five more under the general heading of political processes.

This case study of political behavior in one community over a few months of time in one election period is then placed in a larger theoretical framework, in two concluding chapters. In the first, the study is related to social-psychological and sociological theory. Here the concept of "implementation" and three examples of the use of "process analysis" are of special interest. In the final chapter, the empirical findings of the Elmira study are related to larger questions of democratic practice and democratic theory.

Chapter-by-chapter summaries list 149 main points on which the data contribute some evidence. Another contribution is a comparative listing, in Appendix A, of 209 findings or generalizations reported in 14 publications from seven similar major studies. Questionnaires are reproduced and the construction of each of the 17 indexes is explained. Liberal use is made of charts, 131 of them. Both charts and tables carry titles interpretive of content.

It is to be hoped that in the future similar studies will be possible on cumulative and comparative bases in rural areas and in other urban areas, including localities where religious and other differentials contrast with Elmira.

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Today's Isms: Communism, Fascism, Capitalism, Socialism. By William Ebenstein, New York: Prentice-Hall, Inc., 1954. Pp. x + 191. $2.95.

This volume is a discussion of the main representations of the democratic and totalitarian ways of life: capitalism and socialism on the democratic side, and communism and fascism on the totalitarian. Other minor "isms" were not considered. The emphasis in the volume is upon each major representation as a way of life, not just as a social, political, or economic system. The book stresses the diametrically opposed values and beliefs in the democratic and totalitarian systems, giving attention to the psychological foundations of both.

Part One analyzes, in two chapters, communism and fascism as the chief totalitarian systems. With respect to each, brief historical backgrounds are given, sketches of the main theoretical positions and the operations of the systems today are presented, and the sources of strength and weakness are reviewed. Then the question of these systems as issues for us today is raised. The issue of communism as a

way of life today is presented by the author as the age-old struggle between human liberty and enslavement; he states that, if the free world commits itself to the fight between these two, there can be little doubt of the ultimate outcome. As for fascism as a threat to a democracy like the United States, the author says that the danger lies in "the insidious and unnoticed slow corroding of democratic habits and institutions by pre-fascist and pro-fascist attitudes" and that we must be on guard for such a situation.

Part Two presents, also in two chapters, capitalism and socialism as the major systems representing the democratic way of life today. There is a contrast between the communist conception of democracy in which the means of production are owned by the state in the interest of the overwhelming majority and the Western conception where the state is an instrument to aid the individual in living a fuller life, where rational empiricism and voluntarism dominate, and where there is recognition of the basic equality of all human beings. Then follows consideration of political democracy and its psychological roots, of the problems of individual freedom and national security, of the weaknesses and strengths in capitalist democracy, and of the development of the welfare state, in which American capitalism has given to the people *now* much of what socialism promises them for the future.

Socialism's historical background is discussed briefly. Then the link between capitalism and socialism is made by taking Robert Owen, capitalist-socialist and the first to use the term "socialism," as the illustration because of his founding of British socialism. The discussion of the relationship between capitalism and socialism emphasizes that successful socialist programs have grown up only in nations with strong democratic traditions, where socialists can concentrate on their overambitious program of creating more opportunity for the underprivileged, of ending inequality based on birth rather than service, of opening the horizons of education to all the people, and of eliminating discriminatory practices. The irreconcilable antagonisms between socialism and communism are discussed, especially the socialist policy of adhering to strict constitutional procedures rather than trying to gain control by revolutionary upheaval, and the problems of nationalization of industry under social review. The impasse for socialism today is stated to be that socialists have no place to go since so much of their program has already been realized.

This is an excellent, brief presentation of these four viewpoints. The rural sociologist who wants to think on these problems will find much help here. Some will object to linking socialism with democratic capitalism, probably more because of an antagonism to the word "socialism" itself than to the ideas relating the two. But the author has presented the ideas in these "isms" helpfully and in a challenging manner.

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Communism and the Russian Peasant and *Moscow in Crisis*. By Herbert S. Dinerstein and Leon Goure. Glencoe, Ill.: The Free Press, 1955. Pp. xviii + 254. $4.50.

Communism and the Peasantry: Implications of Collectivized Agriculture for Asian Countries. By Ramswarup. Calcutta: Prahi (no date). Pp. 194. $5.00.

The first of the volumes under review consists of two essays related to each other only in that the author of the first is also co-author of the second and that both deal with the Soviet Union. The second essay is devoted to the story of three days, October 16 to 18, 1941, when Moscow was without visible government, at least without visible police force. Nothing in particular happened, probably because the crisis was so short and the outcome so uncertain. The crisis is vividly but soberly described on the basis of critically sifted publications, some unpublished material (such as the *Diary* of General Halder), and interviews with persons who had lived through the crisis.

To the readers of *Rural Sociology*, the essay on *Communism and the Russian Peasant* is of more interest. The author (Dinerstein) declares his intention of examining and evaluating Soviet leadership and control in the collective farms, but actually writes on a broader and better-known subject—the functioning of the *Kolkhozes*. One may wonder whether, after N. Jasny's monumental *Socialized Agriculture in the Soviet Union*, one could say anything new. But Dinerstein does. He ably incorporates later developments and introduces a number of telling illustrations, on the basis of interviews with persons who had to live and work under the dreadful system. Sometimes he uses testimonial evidence to prove facts well established, e.g., the famine of

1933. Conclusive facts and figures appeared in 1940 in *Rural Sociology*, in the present reviewer's article, "The Population of the Soviet Union." Later on, Frank Lorimer, in his well-known *Population of the Soviet Union*, came to the conclusion that around 1934 a population "discrepancy" of 5,522,000 persons occurred. Time and again the author makes poorly supported or outright wrong statements. It is not true that in pre-revolutionary Russia the *mir* existed on state lands only; or that the peasants had seized almost the totality of the landlords' lands at about the time of the Communist revolutions; or that *all* party members function as leaders; or that the garden plot is the peasant's property; or that a peasant must work 233 days a year on *kolkhoz* property, and so on.

But these are minor errors worth mentioning only because the author succeeds very well in giving a clear and vivid picture of the malfunctioning of the collective farm. Among the major structural causes he mentions the absolute collectivization of planning (broken, perhaps on paper only, in March, 1955) and the existence of interlocking systems of verification which by being taken to task if something goes wrong, are compelled to assume executive functions. Economically, the system is inefficient because the peasant does not see any connection between work and reward. It is impossible to live on what is distributed on the basis of "workdays"; so the peasant concentrates on his garden plot (which is not sufficiently emphasized in the essay), and both the rank and file member and the officer are almost compelled to commit illegal acts. As a result, an informal system of mutual insurance has developed; nobody is inclined to accuse anyone else because of the fear of reciprocation. Therefore, punishment for deviation is rare and surprisingly mild, and the community sees in it misfortune rather than disgrace. Nevertheless, there is no evidence of sabotage, but the persistence of the "private property tendency" among the collective farmers is beyond doubt.

The second volume is devoted to the implications of collectivized agriculture for Asian countries. Written by a Hindu for Asians, the book naturally contains nothing new for the American reader so far as the theory and practice of collectivization in the Soviet Union and the Western satellites is concerned. There follows, however, an able demonstration of the "obligatory character of the Soviet practice" for all countries under Communist yoke. An interesting case study of a Chinese village is given to support this thesis. A short survey of the agrarian program of the Communist party of India is offered, again showing that all the inspirations come from Moscow (Mao is explicitly repudiated!) and change whenever the wind changes there.

The final part of the book is devoted to the formulation of an agrarian program for India. The author strongly opposes the application to India of the "capitalist" principles of concentration of production and of mechanization. These principles are sound only if there is plenty of land but labor is scarce. In India, with the unfavorable rate of land to people (447 million acres of *cultivable* land, at the most, for 320 million inhabitants), the application of these principles would be disastrous. The author summarizes his positive program in these words: "We want a revitalized agriculture carried on by independent peasants (on a soil) fed by organic manure with traction power supplied by the bullock." On that background, no standard of living comparable to the American or the British could be achieved. But "the idea of an artificially inflated standard of living" is evil and never should be adopted in India.

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An Economic and Social Survey of Rural Households in Central Luzon. By Generoso F. Rivera and Robert T. McMillan. Manila: Philippine Council for United States Aid and the United States of America Operations Mission to the Philippines, 1954. Pp. xiii + 179. (No price stated.)

This is the second report by Rivera and McMillan. The first report, *The Rural Philippines*, was a study of thirteen *barrios* distributed throughout the republic. The present report focuses on central Luzon, the seedbed of the Hukbalahaps and one of the "trouble spots" of the Philippines. A complete enumeration was made of all households in a sample of nine *barrios*. A random sample of nine hundred farmers and laborers from these *barrios* were interviewed to obtain detailed information on farms, income, expenses, tenure, employment, migration, and participation. Data were also taken from official records, and landlords and community leaders were interviewed.

The survey report is introduced by a concise summary, essentially statistical,

comparing central Luzon with the rest of the Philippines and presenting the basic findings of the survey. This is followed by a description in greater detail of the purposes of the study and the nature and type of sample, and by summaries of census statistics. Part Two is a gem. Here in brief descriptions, well-chosen pictures, and basic statistics are word pictures of each of the nine *barrios* studied. These *barrio* stories tell more about rural life in the Philippines than any other publication to which this reviewer can refer. There are chapters on farm size and population, tenancy (and this is the high tenancy area of the Philippines), crop production and family income, the distribution of farm capital, farm credit, rural employment, farm labor, rural levels of living, and rural policies and programs. In this latter chapter the authors make policy statements based upon the findings of their survey. Here is a sample of their statements:

> The chances of a landless worker becoming a farm owner in central Luzon are negligible, because low productivity, high rentals and interest, and other factors prevent him from accumulating savings for the purchase of a farm. An effective program of transfer of land from large landholders to the tillers is urgent because the farmers want it and need it as an incentive to greater production, stability, security, and resistance to communistic influence.
>
> The recent experience of the Government in implementing the purchase of landed estates for resale to tenants has been less than encouraging due generally to insufficient funds, ineffective administration, and imperfections of the legislation. Since 1936, the Government has purchased 44,671 hectares at a cost of 18,425,675 pesos. It has sold 13,344 hectares. Immediate steps should be taken to sell the remaining land to bona-fide tenants.

The reader can readily comprehend the possibilities of such data and such statements being burrs under the political saddle. However, many Philippine officials welcome this directness. It gives them a firmer basis on which to develop programs of reform.

The reports of Rivera and McMillan have undoubtedly produced the most accurate current information on rural life in the Philippines. These publications should be read as reports on economic and social conditions of rural people, not as research to prove or disprove a social theory. The basic purpose of the studies was to obtain data for program planning by the Philippine government in cooperation with the American Operations Mission to the Philippines. Because there is so little *barrio* information outside of unpublished anthropological theses, these two reports have been eagerly sought for teaching material as well as for program planning. They are "must" reading for anyone who is interested in Philippine rural life.

May this reviewer recommend that you urge your library to get a copy of this publication and its predecessor, *The Rural Philippines*, before the supply is exhausted.

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People in Ejido. By Henrik F. Infield and Koka Freier. New York: Frederick A. Praeger, 1954. Pp. 151. $3.00.

Authoritative sociological information about Latin America is so greatly needed that new material is always welcome. In this case, because the authors are Infield and Freier, the expectation is greater. Henrik F. Infield has well established his position as a prolific writer in the field of the sociology of cooperation, and his contributions are well known. Koka Freier, as Executive Secretary of the Group Farming Research Institute, has been in close association with the senior author.

People in Ejido brings forth a realistic picture of an adventure in economic and sociological planning in Mexico, which, though not profusely advertised, affects approximately a fourth of Mexico's total population. The *ejido* symbolizes a large-scale agrarian reform movement of "land for the landless," which started in 1910 but gained its peak of development during President Lázaro Cárdenas' regime (1934-40). It aims at the emancipation of the largely landless Mexican peon and the increase in food production by collective or cooperative farming.

Infield and Freier's visit to the *ejidos* is presented by interesting and realistic accounts (mosaic form) of different experiences in successful and unsuccessful projects. The narrative style makes the book's reading both easy and enlightening. The reader will wish to share the authors' experiences. In several sections of the book, subjective observations by the authors blend closely with their objective analyses. Yet it leaves the reader desirous of learning more details about the *ejidos*.

The authors conclude their book with, "Summed up . . . it means that if men like Cárdenas and the people of the *ejidos*, who are the founders, as they are the mainstay,

of modern Mexico, are given any say in the matter, the *ejido* is here to stay. This is probably the most encouraging impression we gained on our tour through the *ejidos*."

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Sociological Theory, Its Nature and Growth. By Nicholas S. Timasheff. Garden City, N. Y.: Doubleday & Company, Inc., 1955. Pp. xv + 328. $4.50.

This is a summary and study of what may be called "modern sociological theory" —that from Auguste Comte to the present —written by a distinguished Russian, who has been teaching at Fordham University for the past two decades. Timasheff's earlier book of theory, *Sociology of Law*, commanded respect; his present work, in turn, will have many followers.

He begins with full chapters on Comte and Spencer and then follows with shorter notations about individuals, in chapters on "Other Pioneers," "Social Darwinism," "Psychological Evolutionism," and so on. Full chapters are devoted later to Durkheim, Pareto, and Max Weber. Large mention is given also to C. H. Cooley, W. I. Thomas, P. A. Sorokin, Talcott Parsons, Oswald Spengler, and Arnold Toynbee. In the table of contents about fifty sociologists are headlined—mainly those well known in America; about seventeen are Americans, ranging from L. H. Morgan to Alfred L. Kroeber. These latter two, primarily anthropologists, are mentioned only for their contributions to sociological theory. The index lists, in all, about seventy names of sociological theorists to whom special attention is devoted.

The appendix has three teaching helps: "Suggestions for Further Reading;" a chronological table of the social thinkers, listing the best source for each; and a geographical synopsis. These appendices are for use by the teacher or student who wishes to approach sociological theory in a manner different from the synthetic approach of this book. In the text itself, there are two chapters not ordinarily found in such works—one deals with Russian sociological theory and another is called "Philosophical Schools." This latter is a sort of summary of selected views on the nature of social groups, ranging from the solid work by Otto von Gierke down to some existential "formalistics" currently found particularly in circles around the University of Paris. Two writers of Italian origin get mention, Vildredo Pareto and Achille Loria.

This is not a book which explicitly takes up given fields of behavior, or gives the main earlier theories in these fields, or cites the more recent critical studies, or brings the reader up to date on what is considered valid and what not valid. Rather, it leans somewhat to the recital of arguments in the field of an abstruse sociology for sociologists' sakes. In a considerable degree, it is a renewal of a type of study which a few, at least, consider anti-scientific. It has been possible in the past for men to attain temporary prominence in the field of sociology solely because of their pontifical dexterity in advertising merely plausible ideas, rather than by contributions to human knowledge. While this academic word game seemingly died down for awhile, it again shows signs of upsurgence.

This may be why, after all the water which has flowed under the sociological dam since Comte, theoretical refreshment in the discipline has come very largely from men in a considerable degree out of the field of sociology itself. Examples of these are Pareto, Spengler, and Toynbee. For sociological scientists to get a major place in this book, they have to be extremely unusual, like E. Durkheim and W. I. Thomas. On the other hand, many vociferous nonentities—from the scientific viewpoint—rate much greater consideration here than brilliant men who used theory as codification of observation and generalization, as for instance did R. E. Park. This main point is emphasized here because of its paramount importance to sociology as a discipline aiming at, in Aristotelian terminology, "some utility." A sophisticated growing knowledge of man's behavior is a "must" for modern society. We can ill afford to nurse orchids when we need wheat.

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The Family: As Institution and Process. By Clifford Kirkpatrick. New York: The Ronald Press, 1955. Pp. viii + 651. $6.00.

This is not just another addition to the growing library of college textbooks on marriage and the family. It is a product of tremendous industry on the part of an author who has covered almost the entire body of current knowledge about the American family from an interesting and

appealing point of view. Some books in this field are functional in their approach while others are more academic. This one is decidedly on the academic side. It is almost guaranteed to attract the most scientifically oriented of instructors in college and university courses in family sociology.

A guiding theme, called the "basic hypothesis," is that humans as family members tend to reproduce and perpetuate those role-conceptions and role-patterns that provided them with motive satisfactions in prior family experience. Likewise as family role-partners they strive with special effort to fulfill aspirations denied them in previous family life. This process of role enactments is revealed in recurring series of family dramas that take place within an institutional framework. Institution-wise the family is viewed as a set of social expectations concerning sexual expression, reproduction, child rearing, and the definition of relationships of age, sex, and kinship groups. Process-wise the series of family dramas change at different stages of the individual and family life cycle. Cultural diversity provides discrepant scripts for the role associates in the dramas, often with resulting conflicts, confusions, and dilemmas. Marital and family success is viewed as harmonious interaction of complementary roles.

Emphasis is on scientific method and analysis. Implicit, however, is a value orientation that stresses the increase of family happiness and personality adjustment of members as ultimate goals. Happiness and adjustment are identified with nonconflicting aspirations that are actually or potentially realized in ways acceptable to self and to significant others.

In line with this theoretical structure, this work includes a study of the nature and origins of the family, social changes and the family, the life cycle of family experience, and crises and family reorganization. More than half of the book is made up of chapters in which a chronological approach is pursued for analyzing the family process. This process is evaluated in terms of the happiness-adjustment criterion. Hypothetical persons of each sex are followed from birth through the family dramas of infancy, childhood, and adolescence, and on into the later phases of the family process. The discussion includes the subjects of dating, love, mate selection, sex adjustment, marital adjustment, and having children. Departures from the chronological pattern are made in order to discuss the subjects of measurement and prediction of success in marriage, to review marriage trends and prospects, and to analyze marriage in relation to careers for women. Following discussion of normal family experiences of parents in the middle years and in old age, attention is turned to divorce as a form of marital disintegration. Two chapters are devoted to this subject—one emphasizing divorce as process and as institution, the other placing emphasis on the persons involved in divorce. A final chapter describes various views and experiments in family reorganization, traces the family-life movement in the United States, and points up potential areas of gradualistic changes in American family life. A 25-page appendix sets forth the sources and findings on factors related to success in marriage.

It is certain that this book deserves high praise as a major contribution to a coming science of family sociology. There are certain respects in which the work may be open to some friendly criticism. Two of these may be pointed out. The first concerns the so-called basic hypothesis. While stated rather vaguely, this appears to boil down to the proposition that subsequent family behavior is a function of prior family experience. The application of this assumption may give the less-discerning reader the impression that the flow of family experience in a series of family dramas constitutes a closed system. Hence, he may view the family as insulated from the rest of society. The somewhat complicated diagrams included as visual aids tend to reinforce such an impression and to convey the idea that the antecedents of family behavior are all to be found within the family institution and process itself and not in factors external to it. The author of course does not accept this extreme view of his hypothesis and did not intend to convey the closed-system impression.

A second criticism with a degree of validity may well be made not by the professional sociologist on his own behalf but from the viewpoint of the student: It is simply that the author's relatively heavy and recondite treatment in some of his chapters is apt to prove somewhat difficult, particularly for those students who are not sociology majors.

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American Indian and White Children — A Sociopsychological Investigation. By Robert J. Havighurst and Bernice L. Neugarten. Chicago: University of Chicago Press, 1955. Pp. xiii + 335. $5.00.

This volume grows out of the well-known Indian Education Research Project which has already fathered numerous books and articles. It reports and interprets the findings resulting from the application of several psychometric devices to a sample of about 1,000 six- to eighteen-year-olds of the Hopi, Navaho, Papago, Sioux, Zia, and Zuni tribes, and to 733 white American children in a midwestern community ("Midwest" or "Jonesville"). An appendix reports on the administration of some of these same instruments to a comparable sample of New Zealand children. Five tests were employed: (*1*) The Emotional Response Test requires the children to give three examples of when they felt happiness, sadness, fear, anger, and shame; and of the best and worst thing which could happen to them. (*2*) The Moral Ideologies Test requires the children to give three (or six) praiseworthy things a child could do and who would praise him, and then asks for the same thing with respect to bad things to do. (*3*) Piaget's questions about the rules of the game ask the children to say who made up rules of a game and whether children can change them. (*4*) A modified version of Piaget's story test attempts to determine belief in animism and immanent justice by asking whether a wrongdoer would be punished for his act by having his ax slip and cut him. (*5*) An analysis of free drawings is the final test. The basic pattern of the monograph is to present cross-tabulations by age, sex, and cultural group for purposes of discovering and interpreting differences in the pattern of response to each of the tests employed.

Although this reviewer is impressed with the care and skill with which the authors report such a large mass of data—there are over eighty full pages of tables—the net effect is somehow less than satisfying. Perhaps the basic difficulty is the almost complete absence of a theoretical orientation or hypothesis to guide and focus the analysis of the data. Facts are infinite, and this volume has a liberal share of them. The more meaningful results which can be expected from a theoretically oriented use of the data are well illustrated in the chapter on the "rules of the game." In this case, Piaget's theory came ready-made with the test. This is the theory that modern societies gradually train their children toward an "autonomous morality" in which the individual comes to feel personally responsible because he has participated in the process by which moral rules are made. By contrast, children, as they mature in primitive societies, increasingly accept the tribal traditions and rules as absolute and unchangeable and as fixed and maintained by an external authority. The distinction is similar to the one made between "shame and guilt cultures," minus the Freudian trimmings. Although the findings are not conclusive, in general they support Piaget's theory, and thus represent an important contribution to knowledge of the process of socialization.

The authors place considerable emphasis on the use which others could make of the data in the numerous tables and appendices, and on the suggestion that they have provided a methodological model which others can follow with profit. The first of these suggestions might materialize, and the authors are to be commended on the admirable clarity and candor with which they discuss each phase of the research and the shortcomings of the methodology. Exception must be taken to the latter. It is doubtful that there is any such thing as a "minimum program of social-psychological testing," or that these or any other set of psychometric devices are best. Rather the best tests are those which can provide the data needed to answer the particular theoretical or practical question at hand. Nevertheless, the magnitude of the work reported is impressive. Important data concerning each of the cultures under study are made available, and a valuable service has been rendered by the development, testing, and careful analysis and reporting of the results of using the unique psychometric devices which form the basis of the monograph.

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The Health of Regionville. By Earl Lomon Koos. New York: Columbia University Press, 1954. Pp. 177. $3.25.

The research reported in this book is an intensive study in a New York State community with a population between eight and nine thousand. Data were collected from a panel of households four times each year for four years. The panel began with 550 households and ended with 514. Each of the sixteen interviews focused on different types of information, except for three during which illness experience for the

preceding six months was recorded for each family.

One of the main comparisons in this work was that of social class. Families were grouped as Class I, Class II, and Class III, from high to low. Comparisons of knowledge, attitudes, illnesses, and behavior with regard to health were made of the people in the three classes. The illnesses increased from the highest social class to the lowest, as did the proportion of illnesses not attended by physicians.

Differences in opinion about whether or not specific symptoms need medical attention are striking among the classes. For each of seventeen symptoms, which included such things as loss of appetite, continued coughing, lump in the breast (similar to the Michigan State College Symptoms Schedule), the proportion saying that a person with that symptom needs to obtain medical attention decreased from Class I to Class III.

Satisfaction with the treatment given by physicians was much more prevalent among Class I than among social Class II or Class III families. In obtaining medical aid from physicians, people in "Regionville" were influenced by their friends' practices and their own beliefs. Thus, a woman would go for prenatal and postnatal care if the members of her bridge club went also; but if she were in the lower class where her friends would think she was a "weakling" for so doing, she would not obtain care unless it was in the nature of an emergency.

The use of nonmedical personnel, such as chiropractors, is described in another chapter. Attitudes and practices concerning dentists, druggists, and hospitals are also presented, together with methods of paying for medical care.

Four per cent of Class I favored a governmental compulsory-insurance plan for paying doctor and hospital bills, while 45 per cent of Class II and 56 per cent of Class III favored such a plan. About 86 per cent of Class I were in favor of obtaining medical care through a group-practice arrangement, while about 68 per cent of Class II and 50 per cent of Class III were in favor of such an idea.

Koos maintains that one of the main health problems is the coördination of all health activities in a community, and he feels that a person should be employed by a hospital or a public health agency to carry out such a role. In his opinion physicians cannot accomplish much toward improving the over-all community health situation because of "personal limitations and economic aspects" of their practice. Public health workers are the ones who can achieve greatest success in coördinating health activities and improving health conditions, since they are not burdened with the details of medical care and can view health needs broadly and objectively.

This study is a much better piece of work than the ordinary survey of uses of health resources. It should help people understand that medical care is related to the values which people have rather than just to presence or absence of medical facilities and personnel. There may be some danger that the data will be interpreted as substantiating beliefs that "no two individuals are the same" and that successful general programs therefore cannot be developed. If this happens, it will not be the fault of the author, for his work clearly indicates possibilities for a class-oriented attack.

Koos presents his methodology so that the validity of his results may be evaluated. The fact that he had such cooperation from his large panel during the sixteen interviews is a credit to his field procedures. The book is easy to read and has many quotations illustrating differences among the three social classes. It should be something from which health workers and scientists can derive profit as well as enjoyment.

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Guidance in a Rural-Industrial Community. By Amber Arthun Warburton. Washington: Alliance for Guidance of Rural Youth with the cooperation of the Department of Rural Education, National Education Association of the United States, 1954. Pp. xiv + 249.

This is an account of an almost 20-year project of Harlan County, Kentucky. Stories about their school life were written by 2,422 pupils (sixth-, eighth-, ninth-, eleventh-, and twelfth-graders). Three hundred and twenty-two teachers, 53 principals, and 3 assistants filled out questionnaires and gave opinions. Some pupils interviewed "old timers"; community leaders interviewed other adults. " . . . the purpose was to help children and young people realize their best potentialities whether they remain in the county or migrated to other towns and cities through choice or necessity."

The annual county institute, inspired by the "Alliance," drew upon Columbia University and the University of Maryland's Institute of Child Psychology. Activities

involved scores of local civic groups and many state and federal agencies, such as the Department of Education, the Department of Health, and the Employment Service.

Despite the handicaps of war's disruption, strikes, rapid teacher-turnover, meager equipment, population mobility, etc., one feels that the majority of teachers get the idea that the main job is to study the child as a growing human personality. This is not a mere vocational-guidance program. Folders kept on individual pupils—incidents, home visits, interviews, tests, grades —*are consulted frequently* and reviewed by teachers in consultation.

Perhaps half the volume consists of fine-print excerpts from biographies and reports. Each of the sixteen chapters is illustrated and summarized for readers who skip the absorbing personal stories.

Sociologists will note the relationship of good homes and of understanding parents and sympathetic teachers to school conduct, performance, and attendance. In turn, teacher and parent cooperation begets community improvement. Involvement of the community in constructive activities leads to cooperation by the state and national agencies.

The author says: "The single most important achievement of the Harlan County program has been organization of the systematic child-study groups for teachers. . . . study groups did not materialize until the county was willing to employ a supervisor for this work with teachers . . . . "

The reviewer adds that the basic, effective work appears to be done in the elementary grades. Following through from the first grade is what counts most. We must admit that the school is the foster parent of our children.

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Nomin Wa Tokaijin Ni Utsutaeru (The Country Man's Appeal to the City Man). By Shinmazo Matsumura. Tokyo: Shin Hyoron Sha, 1953. Pp. 264. 250 *yen.*

In order to describe the feeling of the farmer toward the city man, the author seeks to analyze and discover why a farmer is "conservative," "dependent," "traditional," and "negative" in his thinking, attitude, and ways of life. In this sense, the book is a kind of handbook for the lay reader. This study is based upon the author's own experience and life with farmers for a decade in a rural area of Chiba Prefecture.

A basic assumption of the author is that the farmer's stagnancy is due chiefly to the cruel agricultural policy toward farmers since the Tokugawa feudal regime. Matsumura feels that it is very difficult for a farmer to project his thoughts beyond the village and/or family because of the persistence of localism. Nearly half the volume is devoted to a discussion of the causal relation between this psychology and the farmers' motives, from the Tokugawa era to contemporary times. However, it is dangerous to single out the political factor—namely, the cruel agricultural policy—as more important than others, without further study. This error in the author's analysis results from a lack of scientific social surveys and research upon which to base his conclusions.

Nevertheless, the author claims that the conservative nature and inferiority feeling of today's country man are largely due to such factors as the following:

1. The neglect of education in agriculture forces farm children to have a feeling that "I don't like to be a farmer."
2. The press depicts the country man as traditional, retrospective, and commonplace, in keeping with the recent trends in Japan.
3. Farmers are indifferent to the Agricultural Cooperative Union. The union does not make great efforts for either culture or production.
4. The farmer's lack of capital discourages adoption of improvements and results in an unscientific method of farming.

Concerning these four points, this reviewer wonders whether the author is aware that contributing conditions do not mean causality. A good analysis is made with respect to the dual personality of farmers in Part II. They have two characteristics: great resignation and a strong feeling of self-defense. Such characteristics were rooted in the pressure of increasing living expenses with heavy taxation. Living as they do on a "from hand to mouth" existence, they are likely to live for something immediate rather than for the future.

The unenterprising characteristic of farmers is believed due to a fear that other people may laugh at them if they do something new or original. Citing an example of a farmer who was unsuccessful in swine growing, the author says, "although it was a story ten years ago, the village farmers

sneer at him and deride him in a local song" (p. 68).

Part III explains why farmers have feelings of *Giri* (obligation). According to the author, they are afraid that there will be "the devil to pay" if they neglect their obligation to neighbors, friends, relatives, superiors, and even acquaintances. Various findings in this connection agree with those in Benedict's *The Chrysanthemum and the Sword* (chaps. V and X).

The author makes a very interesting comparison of the farmer's and the city man's way of thinking. The city man's order of economic thought is (*1*) clothing, (*2*) food, and (*3*) house, while the farmer's order of it is (*1*) house, (*2*) clothing, and (*3*) food. Moreover, to a city man a house is a building; to a country man a house is a dwelling place or household.

On the whole, the book is readable and objective. It is a direct contribution to a detailed and realistic view of the social psychology of Japanese farmers, although some parts of the book require revision.

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Mortgage Lending Experience in Agriculture. By Lawrence A. Jones and David Durand. Princeton, N. J.: Princeton University Press, 1954. Pp. xxii + 233. $5.00.

This interesting volume reports a valuable cooperative study made by the National Bureau of Economic Research and the former Bureau of Agricultural Economics. It is the second study in Agricultural Financing; several others are in various stages of completion.

The book is divided into two parts: "The Economic Geography of Farm Mortgage Distress," with five chapters; and "Farm Mortgage Distress and Individual Farm Organization," with four chapters. Two appendices, 49 tables, and 39 figures add to its usefulness.

The primary objective of the study was "to determine some of the important causes of farm mortgage distress." This was accomplished to an admirable degree. The basic statistical data for the economic geography analysis cover five items. Information for analyzing individual farm experience within similar type-of-farming areas was secured largely from nine mortgage-experience studies. Additional evidence was obtained from three studies of variation in farm income due to quality of land and one study of variations among type-of-farming areas.

The economic geography analysis sheds new light on the location of farm-mortgage trouble spots. It delineates five such areas and four areas of unusually good experience. The integration and interpretation of past studies supplies needed insight into causes of farm mortgage distress; in this analysis more than fifteen factors were given consideration.

In considering "Recent Adjustments," attention might well have been given to the cooperative debt-adjustment program, technical assistance (supervision, borrower selection, emergency feed and seed loans, and similar activities. Also, more than passing attention might well have been given to institutional arrangements under which farmers obtain mortgage credit, such as terms of mortgages, deferred and variable payments, foreclosure law, moratorium legislation, deficiency judgments, insured loans, and the banking and credit system.

The concluding section on "Continuing Problems" would have been amplified by a more searching look to the future. It is hoped that other credit studies, possibly in this series now "in various stages of completion," will explore fully ways and means of meeting mortgage distress should it develop in the future. The value of an experience study is maximized when it is related to the present and probable future situation. This needs to be done.

It would be helpful if data on farm mortgage activity could be assembled currently so that an even more valuable analysis could be made if the current inflationary period should end in deflation and farm mortgage distress. If this were done, it might be possible to build upon the excellent graphic relationships presented throughout this book, thus extending the use of formal statistical processes in establishing causes of farm mortgage distress and in delimiting distress areas.

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Systems of Social Security: United States. International Labour Office. Geneva: Printed by Kundig, 1954. Pp. xi + 106. $0.75.

The present monograph is one in a series on national systems of social security being prepared under the general direction of the International Labour Office and follows the first in the series entitled, *Systems*

of Social Security: New Zealand, 1949. The current monograph was prepared by the U. S. Department of Health, Education, and Welfare.

The material is separated into five major categories, namely, (*1*) "Legal Basis," (*2*) "Scope of Protection," (*3*) "Provision of Benefits," (*4*) "Organisation," and (*5*) "Financing of Social Security." Under each of these categories, salient features of the numerous laws relating to social security are discussed, and a limited amount of description and interpretation is included. Three appendices are devoted to statistical tables and summaries of the principal amendments in 1954 concerning Old Age and Survivors' Insurance, the Railroad Unemployment Insurance Act, the Railroad Retirement Act, and the Railroad Retirement Tax Act.

Two distinct contributions are made by this monograph to those who are directly concerned with programs of social legislation. First, the ultimate preparation of the entire series of monographs will provide a ready reference source for comparison of any phase of one national system of social security with the systems of any or all other countries. Such comparisons now entail considerable labor in seeking out the information from a number of sources.

Second, the monograph should prove particularly valuable to teachers of courses which discuss social security. The courses in which social security legislation becomes part of the subject matter are numerous and diversified. Teachers of courses in economics, public welfare, sociology, and political science, to mention only a few of the fields where such subject matter is treated, will find *Systems of Social Security* handy as reference material, because of its categorical organization.

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BOOK NOTES

Social Organization. By Scott A. Greer. Doubleday Short Studies in Sociology, No. 9. New York: Doubleday & Company, Inc., 1955. Pp. x + 68. $0.95.

The treatment of *Social Organization* in this 68-page pamphlet is surprising for its simplicity, yet profundity, and for its comprehensiveness, yet brevity. Perhaps it is evidence that sociology has "come of age" when an author can employ theory without the use of technical jargon to inform the people about some of the social facts of life. The interplay in the pamphlet between the conceptual scheme and lucid illustrations should be quite effective for an undergraduate class in sociology.

The discussion of the nature of social organization is begun with an account of the "foreman" in industry and how his behavior is governed by his position in the factory structure. From this the student is led to an account of what social organization *is* and *does*.

In the second chapter, the development of the labor union is used as a case illustration of how an organization arises out of the social process to fill a vacuum in the social structure. While too brief to give more than an introduction to "The Structure of Social Groups," the third chapter discusses roles and norms as products of the interdependence and interaction of group members.

The fourth chapter uses the Cooley typology of human groups, those with primary and those with secondary relations. This typology is used to show the commonalities between such diverse groups as the family and the army platoon. The relationships of size, time, ecology, and homogeneity to primary relations are presented briefly. A final chapter is a brief overview of the changes in social organization from preliterate to modern industrial society.—E. A. WILKENING.

Georg Simmel: Conflict and the Web of Group Affiliations. Translated by Kurt H. Wolff and Reinhard Bendix. Glencoe, Ill.: The Free Press, 1955. Pp. 195. $3.50.

This volume makes available in English more of Simmel's classic essays in social organization. The first part includes three essays, "The Sociological Nature of Conflict," "Competition," and "Conflict and the Structure of the Group." In these the reader will find many insights into the nature of group processes. These translations should be worth-while reading for those concerned with the competitive and conflicting aspects of group life. The discussion of the idea that conflict is "an integrative force in the group" suggests interesting hypotheses for the study of conflict in rural as well as in urban situations.

The essay on "The Web of Group Affiliation" is an exposition of ideas closely related to those now found under the label of "reference groups" and "situs." Simmel uses historical data to show the significance of multiple-group membership of different

types for social behavior. This is an area to which research could well be directed in an attempt to learn more about leadership, dominant social roles, and social mobility. —E. A. WILKENING.

International Handbook of Cooperative Legislation. By Laszlo Valko. Pullman, Wash.: State College of Washington, 1954. Pp. xii + 273. (No price given.)

The Valko study is a summary and comparison of 1,550 cooperative statutes or orders gleaned from the law books of twenty-five states or countries on the European continent and adjacent islands. The pioneer work of this nature was Margaret Digby's publication of a *Digest of Cooperative Law at Home and Abroad* (1933). Valko is to be commended for compiling, translating, and digesting the essential features of a plethora of laws enacted during the past quarter-century. Teachers, researchers, legal counselors, cooperators, and lawmakers will find much useful information in this volume.—HENRY H. BAKKEN.

BOOKS RECEIVED

Automotive Workers and the American Dream. By Ely Chinoy. Garden City, N. Y.: Doubleday & Company, Inc., 1955. Pp. xx + 139. $3.00.

Culture and Human Fertility. By Frank Lorimer. Paris, 16, France: United Nations Educational, Scientific and Cultural Organization. Pp. 510. $4.50.

Education in a Transition Community. By Jean D. Grambs. New York 16: National Conference of Christians and Jews, 1955. Pp. 124. $0.25.

Family, Marriage and Parenthood. (2nd edition.) Edited by Howard Becker and Reuben Hill. Boston: D. C. Heath and Company, 1955. Pp. x + 849. $6.25.

Handbook of Graphic Presentation. By Calvin F. Schmid. New York: The Ronald Press, 1955. Pp. vii + 316. $6.00.

Income in Kentucky. By John L. Johnson. Lexington, Ky.: The University of Kentucky Press, 1955. Pp. xx + 310. $4.50.

In Search of Wealth: A Study of the Emergence of Commercial Operations in the Melanesian Society of Southeastern Papua. By Cyril S. Belshaw. American Anthropological Association, Memoir No. 80, and University of British Columbia, Vancouver, Canada, February, 1955. Pp. 84. $2.00.

International Migrations: The Immigrant in the Modern World. By Donald R. Taft and Richard Robbins. New York 10: The Ronald Press, 1955. Pp. viii + 670.

Interviewing for Social Research. By Herbert H. Hyman with others. Chicago: The University of Chicago Press, 1955. Pp. xvi + 415. $8.00.

Introduction to Social Welfare. By Walter A. Friedlander. New York: Prentice-Hall, Inc., 1955. Pp. xvii + 683. $6.75.

Language and Society. By Joseph Bram. Doubleday Short Studies in Sociology, No. 8. Garden City, N. Y.: Doubleday & Company, Inc., 1955. Pp. vii + 66. $0.95.

The Language of Social Research: A Reader in the Methodology of Social Research. Edited by Paul F. Lazarsfeld and Morris Rosenberg. Glencoe, Ill.: The Free Press, 1955. Pp. xiii + 590. $6.75.

Social Disorganization. (2nd edition.) Robert E. L. Faris. New York: The Ronald Press, 1955. Pp. viii + 664. $5.50.

Sociology: A Synopsis of Principles. (3rd edition.) By John F. Cuber. New York: Appleton-Century-Crofts, Inc., 1955. Pp. xx + 652. $5.50.

Technology and the Changing Family. By W. F. Ogburn and M. F. Nimkoff. Boston: Houghton Mifflin Company, 1955. Pp. v + 329. $3.75.

The Urban South. Edited by Rupert B. Vance and Nicholas J. Demerath. Chapel Hill, N. C.: The University of North Carolina Press, 1954. Pp. xii + 307. $5.00.

The TVA. By Gordon R. Clapp. Chicago: The University of Chicago Press, 1955. Pp. xiii + 206. $3.50.

Vocational Guidance in France. International Labour Office, Geneva, Switzerland, and Staples Press Limited, London, 1954. Pp. vi + 134. $1.00.

The Western Educated Man in India. By John Useem and Ruth Hill Useem. New York 19: The Dryden Press, Inc., 1955. Pp. xiii + 237. $3.00.

Workbook in Introductory Sociology. By John H. Burma and W. Marshon DePoister. New York: Prentice-Hall, Inc., 1955. Pp. vii + 196. $2.36.

BULLETIN REVIEWS

*Edited by Louis J. Ducoff**

Social Change in a Central New York Rural Community. W. A. Anderson. Cornell Univ. Agr. Expt. Sta. Bull. 907, Ithaca, N. Y. 56 pp. Dec. 1954.

This bulletin portrays social changes in the village community of Waterville, New York. To the rural sociologist whose major interest is in the field of community organization or community dynamics, the setting for this publication is not a new one. Waterville has been the subject of study for at least two doctoral theses; the story of its community development was contained in a Cornell University bulletin in 1933, as well as in Bulletin 871 and other publications on Oneida County. Furthermore, Sanderson and Polson devoted a chapter to Waterville in their textbook on community organization.

Excluding the introduction, the bulletin is divided into four major sections. Each section is a general description of life in the Waterville community and its organization during the following periods: (*1*) before hops were introduced; (*2*) during the raising of hops; (*3*) after the decline of hops; and (*4*) at the present time.

The preface states that, beginning with Waterville's birth, life in the New York village is traced by: "documentary photographs and by description and analysis based on a detailed sociological study and on materials available from other sources." Of these three basic sources, the author used photographs to their best advantage. An excellent job of illustration is accomplished by the use of forty-seven well-chosen pictures.

Certain inconsistencies, however, indicate that other published "sources" on Waterville were not checked very closely. For example, in the bulletin the author states that the number of stores providing services has not "varied much since 1900; it has fluctuated between 30 and 40 in all" (p. 42). Yet a table contained in the 1939 edition of Sanderson and Polson (p. 29) lists fifty businesses in Waterville in 1928.

The reader also experiences difficulty in finding evidence of the third ingredient—namely "detailed sociological study." Statistics and figures are conspicuous by their absence, and it is virtually impossible to ascertain the *degree* of social change in Waterville by reading the bulletin. The publication does not contain a single table, and the description is very general in nature. For example, in the listing of "village business places" are such statements as: "several grocery stores, the hardware stores, several automobile service and repair stations, and perhaps a few others" (p. 41). Approximately a page and a half is devoted to a description of housing in Waterville. Without making use of a single statistic, the author states the major conclusion that there are a number of people who work in other villages or cities and rent apartments in Waterville (p. 40). Although there is no indication anywhere in the bulletin of the degree to which the phenomenon is actually taking place, another general conclusion appearing in the next paragraph is that: " . . . not only do workers in the city come to the village to live, the people of the village go to the city to work" (pp. 40-41).

What this bulletin lacks in thoroughness is compensated for to a certain degree by its interesting content. Even the most critical reviewer could not deny that this publication adds another very interesting chapter to the history of Waterville.

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Factors Related to Changes in Social Participation in a Rural Pennsylvania Community. Roy C. Buck and Louis A. Ploch. Pa. Agr. Expt. Sta. Bull. 582, State College. 38 pp. Aug. 1954.

This bulletin presents the findings of a study designed to test the hypothesis "that changes in social participation occur when factors which have been shown to be associated with social participation change." Specific hypotheses were developed as to the relationship between "changes" in "social participation" and "changes" in "socio-economic status," "age," "family cycle or family type," "church affiliation and attendance," "residence" (borough and township), and "length of residence."

The data were collected in two personal interview surveys (1937 and 1949) of the Howard Community in the ridge and valley section of central Pennsylvania. As the two surveys were not specifically designed

*Assisted by Elsie S. Manny.

for comparative analysis, the authors encountered a number of difficult problems. Data were not available to compute the common socio-economic status scales, and socio-economic status has become a control concept in the study of participation. The participation data were sufficiently different that they could not be scored in the same way. The authors improvised a socio-economic status scale using five items: years of school completed, occupation, and possession of an automobile, telephone, and house. Separate scoring techniques were developed for the two sets of participation data. To help overcome the difficulty in comparing raw participation scores, the total scores for each of the two periods were arrayed and divided into fourths. Only the highest and lowest fourths were used in the analysis. Accepted definitions of formal and informal participation were used. The head of the household is the central figure in the analysis. He is defined as "the one recognized by those in the household as its head."

Some important changes were observed in the Howard Community in the period 1937-1949. The population increased. The percentage of household heads in the high-participating age category (20-64) increased. The proportion of borough and non-borough residents remained about the same, but the number of borough residents in the age bracket 20-64 increased substantially. The community had 13 formal organizations in 1937, and 20 in 1949. The number of churches increased from 11 to 13. The participation of household heads in the community increased markedly over the twelve-year period. The data generally support the hypotheses of the study.

During the twelve-year period, the Howard Community became "more borough centered." It seems to have emerged as a community in this period. Trade-area residents in 1949 looked to the borough as "the place to meet," and activities in the townships had declined. The authors and the reviewer share the opinion that, from the standpoint of both future research and action programs, this general finding may be the most important in the study. It would have contributed more to the analysis, however, had the finding been discussed in the appropriate section in the fore part of the bulletin, and had the specific data been interpreted more realistically in terms of the changes in the community. The study has the usual strengths and weaknesses of analysis of an effect in terms of one variable, without any attempt to control related variables. Nonetheless, the authors have made good use of data presumably collected for other purposes to test an interesting hypothesis.

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Employment and Income of Rural Families in Southern Illinois. J. E. Wills and Harold L. Koeller. Ill. Agr. Expt. Sta. Bull. 580, in cooperation with Bur. of Agr. Econ., USDA, Urbana. 24 pp. Aug. 1954.

This bulletin is based on a 1947 survey of farm and nonfarm employment and incomes of 365 families living in open-country areas of Wayne and Franklin counties, Illinois. About three-fourths of the sample families lived on places that would be considered farms in the Census of Agriculture, this number representing about 5 per cent of all census farms in the two counties. Taken together and separately, the two-county sample is assumed to be generally representative of rural areas in all of southern Illinois.

The major objective of the study was to ascertain, by grouping and analyzing the survey data, "the characteristics of rural families in southern Illinois in order to aid in the planning and carrying out of educational and other welfare programs in the area." The study has achieved this objective, and its results should be of considerable interest to extension workers, especially those primarily concerned with the general area of the survey. From a methodological standpoint, the study is of broader interest because it is based on an interesting and successful experiment in the economic classification of farms.

Whereas the Census of Agriculture has classified farms in terms of the value of farm products sold, with only slight modification in terms of off-farm employment and income, this study classifies them solely on the basis of farm and nonfarm employment of the family. The census classification has the advantage of simplicity, but it is not very well designed for some purposes. For example, the census Class VI includes by definition a majority of farms that have no considerable income from either farm or nonfarm sources; and having so defined this class we can point to it and say, "Lo! the low-income farmer!" The so-called part-time farm group is another example, for this census class clearly excludes a considerable number of farms

that might reasonably be considered as part-time in nature.

The classification used by Wills and Koeller avoids these pitfalls. It was based on farm and nonfarm work performed by all members of the family in the survey year, and includes six groups: (*1*) *full-time farmers,* with 8 or more months of farm work and no regular nonfarm work by any family member; (*2*) *small-scale farmers,* with 1 to 8 months of farm work and no regular nonfarm work; (*3*) *part-time farmers,* with 4 or more months of farm work plus some regular nonfarm work; (*4*) *nonfarm workers with home food production,* which included families with regular nonfarm employment and only 1 to 4 months of farm work; (*5*) *full-time nonfarm workers,* with less than a month of farm work; and (*6*) *retired rural residents,* with less than a month of either farm or nonfarm work.

This classification gives reasonably distinct and homogeneous groupings, the first four of which include most of those classified as farmers in the Census of Agriculture definition. If the family farm-nonfarm work criterion could be superimposed on the next census value-of-sales classification of farms, the usefulness of the latter could be greatly enhanced.

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Factors Influencing the Lives of a Group of Young Farm Families. Christine H. Hillman. Ohio Agr. Expt. Sta. Res. Bull. 750, Wooster. 63 pp. Sept. 1954.

Extension workers, leaders of farm organizations, and other adult educators, as well as rural sociologists, will find in this study criteria well worth their attention in evaluating their current programs which include young farm families. This analysis offers a challenge to those who are concerned with life-long education and the greater fulfillment of the lives of young couples.

It must be acknowledged that the 150 cooperating families who gave personal interviews were not a cross-section of the population. They were selected young couples in central Ohio, under 30 years of age, in good health, married no less than 12 months nor more than 5 years, with an average of 1.4 children each. They all resided on and obtained the major part of their income from the farm; 48 per cent were classified as tenant-operators, 33 per cent had a father-son arrangement, 17 per cent owned and operated their own farms, and 2 per cent were employed as operators or managers of land.

Through personal interviews with husband and wife and, where possible, with both husband and wife, information was obtained on general characteristics of the family, characteristics of the farm family business, physical environment of the home, home management factors, personal factors, economic factors, and family relationships. Though family levels of living and formal schooling of both the men and women were high—accounting for an inevitable demand for a higher standard of living—the expressions of concern doubtless have more general application.

From the standpoint of programing, important aspects of the study are the facts relating to farm or nonfarm origin and to preparation for a farm (or housekeeping) career as well as previous experience in salaried employment. All the men had come from rural families, and most of them had prepared vocationally for a farm career—only a tenth had had any off-farm occupational employment prior to marriage. However, about a third of the wives were from nonfarm places and two-thirds of them had been in salaried employment prior to marriage.

The analysis of these differences in past experience provided a valuable background against which to judge the home and family living problems these families faced. Organized activities and relationships, with but one exception—that of the church—were not adequate. In the suggestions for improvements, emphasis was placed upon social and recreational needs for activities that are family centered, for combined recreational-study groups, and for groups that permit married-couple participation. Such criticisms as "We would like to go to something where we could have a little fun as well as listen to a speaker" and "All the organizations in this community seem to be set up for older people; we'd like to belong to something where the young people get together . . . . " are indicative of the needs that are not being met.

The problems regarding living and farm arrangements, especially for those who shared a house with parents or lived in a second house on the farm, and the need for written, well-defined operating agreements were voiced more often by wives than by husbands. Indications were that informal father-son arrangements that had worked out satisfactorily prior to marriage were not working out satisfactorily after

marriage. More than half of the wives expressed dissatisfaction with such family partnerships and questioned the advisability of continuing them. Also, more than two-thirds of them expressed dissatisfaction with their present housing, where special needs such as "conveniently located bathrooms, play space for the children close to the mother's work area, adequately arranged laundry facilities, first-floor bedrooms, and a heating system which may be properly regulated" were not being met.

More than a third of the wives expressed the feeling that their lack of training in homemaking had made adjustments difficult in the early years of marriage. Both husbands and wives indicated their interest in further training through organized community study groups for young married couples directed to improved knowledge of farm money management. The urgency of this interest is more apparent when the facts regarding family indebtedness are revealed—almost two-thirds of the 150 families reported heavy indebtedness.

The analysis of personal factors such as interest in farm life, attitude toward farming and career, and the values which these couples considered might be gained from farm living indicated a wholesome attitude toward farming as a way of life.

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House Building by Farm Owners in North Carolina. James W. Green. N. C. Agr. Expt. Sta. Bull. 391, Raleigh. 115 pp. Sept. 1954.

This is one of the better studies concerning farm housing. It goes more deeply into the process phases involved than has been done in earlier studies. It considers the procedures followed in deciding to build, the types of causes of delay, the family sacrifices involved, and the planning procedures. The life cycle of the family is considered as the major variable in analyzing the data. An index of house quality was developed. Farmers who were in the young age bracket, higher in formal schooling, and living on the family farm were more likely to do much of the construction themselves. The major reasons for building were poor housing conditions, orientation to the norms of home ownership, desire for individual family living, changes in family size or status, and economic improvement. Putting off building for an average of seven years occurred because of insufficient capital or materials, lack of time, the family's not knowing just what they wanted, and parental influence. In selecting plans, the families had a tendency to consider houses they had seen, or pictures and plans from magazines and booklets. A fifth had no written plans at all, and a third had local builders draft them.

This study reveals the fact that farm owners furnished much of their own labor in building, with half of them using timber from their farms valued, on the average, at $430. Relatives, neighbors, and friends contributed in many cases to the labor force. The mean cash cost was $3,333, but they estimated the replacement value would be $4,926.

It is indicated that the varied role experiences of farmers provide training that makes it possible for them to take a more active part in actual processes of home building.

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Problems of Economic Security for Farmers in Reference to Social Security. Paul R. Poffenberger. Md. Agr. Expt. Sta. Misc. Pub. 169, College Park. 39 pp. June 1953.

Maryland Farmers Look at Social Security. Paul R. Poffenberger. Md. Agr. Expt. Sta. Bull. 446, College Park. 61 pp. Jan. 1954.

These studies, based on parts of Poffenberger's Ph.D. dissertation, present the results of interviews with 268 farmers in two type-of-farming areas—the central Maryland Piedmont dairy-and-general-farm area and the southern Maryland tobacco area. The respondents were a representative selection of farm operators in each area. The field work was completed just prior to the enactment (August, 1949) of amendments to the Social Security law that provided coverage for self-employed businessmen and year-round farm wage workers.

Problems of Economic Security for Farmers in Reference to Social Security is primarily a well-presented summary of the general arguments for and against including farmers under a general social security program. The principal contrary arguments listed are: (*1*) Farming is entrepreneurial in nature (this argument has lost importance as a result of the well-received extension of social security to nonfarm entrepreneurs in 1950); (*2*) the farmer is already the beneficiary of govern-

mental programs designed to maintain the prices he receives for his produce and ultimately to maintain farm income parity with nonagricultural workers and therefore should not receive any additional government aid; (3) many forms of self-insurance are available to farmers so that they can provide for their own old age or for a continuation of income for surviving dependents; and (4) there are administrative difficulties. Arguments favoring social security for farmers point out that the low-income position of most farmers effectively prohibits them from utilizing individual insurance as a means of providing economic security for themselves and their families. This low-income position also emphasizes how short the parity price program and other governmental measures are of their ultimate goal of income parity. Another argument favoring the extension of social security to farmers is that, since many farmers or their dependents will need some form of outside support and since Old Age and Survivors Insurance was designed as a general program, farmers should be included. With reference to this argument the author did not utilize data from the Department of Health, Education, and Welfare reporting a higher percentage of Old Age Assistance recipients in rural than urban areas, reflecting a combination of higher urban incomes and more complete coverage of the urban aged. The author's general conclusion was that farmers should be covered under the OASI program.

Maryland Farmers Look at Social Security explores some characteristics of the respondent farmers and the relationship of these characteristics to the farmers' opinion of OASI coverage of farm operators. Net worth, liquid assets, education, marital status, number of children or other dependents, and amount of insurance carried were among the characteristics considered. In general, the replies indicated that those farmers who were best able to provide for their own future security were less likely to favor extension of OASI coverage to farm operators. The average net worth and amount of insurance of farmers in favor of OASI coverage was less than that of farmers opposed to it. Farmers favoring OASI coverage averaged 8.0 years of school compared with an average 8.7 years of school for those opposing coverage. The over-all opinion of the 268 respondents was to favor OASI coverage, with 56 per cent for it and 44 per cent opposed.

Poffenberger's research dealing with social security in agriculture is the most ambitious attempted up to that time. It has been followed by others, including four joint U. S. Department of Agriculture—State Agricultural Experiment Station studies in Connecticut, Wisconsin, Texas, and Kentucky. The Maryland study and the USDA studies all found that a majority of farmer respondents favored their coverage by the OASI program. They also indicated that OASI benefits would be needed by many farmers in order to maintain a reasonable level of living for their surviving dependents or for their own old age. The aggregate result of this research was undoubtedly utilized by Congress in developing the 1954 amendments to the Social Security law that extended OASI coverage to farmers, among others.

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The Road to Health in Rural Virginia, 1900-1952. W. E. Garnett. Va. Agr. Expt. Sta. Bull. 466, Blacksburg. 55 pp. Aug. 1954.

Fifth in a series of bulletins entitled "Citizenship Challenges," this publication deals with characteristics of Virginia's health and medical care system. It is intended for use by "adult discussion groups, community leaders, and high school and college students."

The main content of the bulletin is arranged in three parts: (1) "The 1900 Health and Medical Care Picture," (2) "A Progress Story—1900-1952," and (3) "The Rural Situation in Summary—Challenges for the Future." The second part ("A Progress Story—1900-1952") constitutes the major portion of the publication and includes comments on indices of health and medical-care conditions and progress, advancing medical research and education, medical personnel, and related questions—a rural approach, the hospital system, public health work, mental hygiene and hospitals, health-related programs of other public agencies, volunteer organizations concerned with health questions, financing medical care and health work, and the environmental picture in 1952. Figures and tables complement the text of the three parts.

Contributing to the bulletin's human-interest appeal, data are arranged in the form of reports from twelve *assumed* committees from the organizations of a Community Federation; fictional names are used for

committee chairmen. This procedure does not conceal the uniformity of style used in writing the reports.

The bulletin presents valuable information in usable form for the educational work necessary if *"that deadliest of all diseases—indifference"* is to be eliminated and the challenge for the future is to lead up the road of developing "fitter folk—a fitter state."

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The Use of Health Services by Rural People in Four Mississippi Counties. Marion T. Loftin and Robert E. Galloway. Sociology and Rural Life Series No. 5, Miss. Agr. Expt. Sta., State College, 128 pp. Mar. 1954.

This is a report of a survey of 909 families, which included 3,443 individuals. Rural-farm, rural-nonfarm, and village families were included in the sample. The counties were not selected to represent a sample of the state, but rather to represent four different health situations. One county ranked high in health facilities and one ranked relatively low; a third was an average Delta county and a fourth an urbanized industrial area. The selection of the sample and all other aspects of the study show evidence of careful planning and workmanship. Distribution and use of health services, unmet health needs, and sources of health information were included in the investigation. The bulletin is a worthy addition to the body of information about health and health services now being made available by several agricultural experiment stations in the United States.

The distribution of health services in Mississippi, as elsewhere in the United States, tends to be affected by ecological factors, such as density of population and distance. Hence the more populous areas have relatively higher ratios of service per unit of population. Data and figures in the bulletin make this fact very clear. It also is evident in this report that rural people tend to use health services—especially those of physicians, dentists, and general hospitals—that are nearest their homes, preferably those at the place where they do their trading, provided it is large enough to have these facilities. Exceptions to this tendency will occur when specialized services or specialized hospitals are needed.

About half of the individuals in the sample reported the use of physicians' services during the period of one year, about a fifth used the services of dentists, and about 6 per cent went to a general hospital. (The 6 per cent figure, however, is based on data for an average year during the five years immediately preceding the field studies.) Use of the services varied with the socio-economic characteristics of the families. The higher the families rated on a socio-economic scale, the greater was the percentage using the various health services. Similar relationships have been found in other studies. They suggest some interesting questions. Do people use health facilities because they have the means to pay for them, or does the culture associated with higher levels of living make it seem logical to include health care? At any rate, whatever the motivating factors may be, the association exists. Age and sex variations and occupational differences also affected use. It was found that women used more of the services than men, and that after 20 years of age the proportion of persons using the various types of health services increased. When use is considered from the standpoint of occupation, the greatest differences were noted in the case of physicians' services. The families of farm tenants, sharecroppers, and farm laborers had the lowest use rate.

It is clearly evident from the data of the study that there is a distinction between *need* for medical attention and *use* of medical services. The usual discrepancy between need and use is the existence of unmet need. The design of this study provided two approaches to estimate the existence of need. One was to ask the informant for the family the following question: "Was there any time within the past year that a member of your family should have seen a doctor, a dentist, or have gone to a hospital and failed to do so?" The responses indicated clearly that more health care was needed. In the opinion of the informants, 35 per cent of the 423 families in Choctaw and Lee counties (informants in the other two counties were not asked the above question) thought some member of the family should have seen a doctor, but did not. Corresponding percentages for other health services were as follows: Have a doctor call at the home, 15 per cent; go to a dentist, 55 per cent; and go to a hospital, 9 per cent. It was found that the informants in the lowest socio-economic level were nearly four times as likely to express an unmet need than were families in the highest socio-economic group.

The second method of determining unmet need was use of the "Symptoms Approach." It was used in Bolivar and Forrest counties. This approach, which was developed by Edgar Schuler and associates, consists of a selected list of symptoms. If any symptom is reported as positive, it constitutes a need for medical attention. Thus, in this approach, the individual, not the symptom, is the unit of investigation. Loftin and Galloway, in a survey population of 1,839 persons, found that positive symptoms were reported for about half the population. They did not, however, carry through the analysis to see how many of these individuals had one or more positive symptoms which were untreated and hence, according to the symptoms approach, would have unmet medical needs. They did find, nevertheless, that only in the case of accidental injuries, running ears, toothaches, abdominal pains, and hernia was medical aid sought in as many as half or more of the cases.

Sources of health information included the family doctor, relatives and neighbors, and various mass media of communication, such as radio and newspaper. It was found that as the level of the socio-economic status increased, a greater use of sources of health information occurred. Only in the case of relatives as a source was the tendency reversed. The proportion of families seeking health information from relatives increased as the socio-economic level decreased.

CHARLES R. HOFFER.

Department of Sociology and Anthropology, Michigan State College.

Benchmarks in Cooperative Extension Work with Local Rural Adult Groups in Iowa. W. H. Stacy. Iowa Agr. Ext. Serv., RIG 11, Ames. 51 pp. Dec. 1954.

If you want some down-to-earth history of extension work, read this bulletin. Here you will find excerpts from various programs and activities undertaken through the years, such as during World War I, the Great Depression, and World War II. Glimpses of philosophy and relations pertaining to the Farm Bureau, to township units, and other organizations are revealing, and also a little nostalgic to this reviewer who grew up on an Iowa farm and can appreciate what is reported in this bulletin.

It is interesting to read excerpts on policy and philosophy of leaders and agencies in times past. Some jibe with those of today and some do not. This bulletin gives one an appreciation of the organizational work of extension agents and the array of groups they work with. It points up the tremendous challenge and opportunity in extension for strengthening democracy, if the work is conducted accordingly.

The bulletin draws upon documented excerpts from various records and statements and also upon specific data collected from successive surveys and from local adult groups and extension in 1923, 1938, and 1953. The concluding section points out the limitations of the study and lists "guideposts which may be helpful in extension work with adult groups."

One outstanding conclusion which may be reached from this bulletin is that there always has been a lot of "localization" in extension work, and that this should continue—not just for more effective education in farming and homemaking, but for leadership development and maintenance of the democratic process. The report provides some meaningful history and data which help one understand where we are today with respect to extension relations, policies, and procedures. This is basic to solving current problems and planning for the future.

E. J. NIEDERFRANK.

Extension Service,
U. S. Department of Agriculture.

Population Trends in Relation to Resources Development in South Dakota. John P. Johansen. S.D. Agr. Expt. Sta. Bull. 440, Brookings. 48 pp. Aug. 1954.

This study is part of a more comprehensive research project undertaken by the South Dakota Experiment Station in cooperation with the United States Bureau of Reclamation. It was also planned as a contribution to the north-central regional project on population dynamics. A previous report in the project was entitled *The Influence of Migration upon South Dakota's Population from 1930 to 1950.*

This bulletin is easy to read. Technical language has been avoided, and the tables are presented in simple form. Maps, graphs, and pictures are used to illustrate the text.

Because of the great differences in agriculture, density of population, and other factors, and to facilitate analysis, the state was divided into eight economic areas. These are essentially the same as the "generalized type-of-farming areas" used by the Bureau of Agricultural Economics and the "economic areas" designated by the Bureau of the Census, but with modifications

to better adapt them to this study. Each of these areas is described, and much of the analysis consists of a comparison of conditions in the respective areas.

The subject matter and scope of the study are indicated by the four main divisions of the report, as follows: general aspects of population adjustments to resources, 1930-1950; population trends, 1890-1950; area adjustments of population, 1930-1950; and main aspects of water resources development.

Some of the principal conclusions are:

1. South Dakota's population is likely to increase to a considerable extent in the future, on account of resources development. Several great water resources projects, located on the Missouri River and its tributaries, are under construction or being planned. These will have multiple purposes, such as flood control, irrigation, hydroelectric power, municipal water supplies, and recreational areas. As these projects reach completion and are geared into the economy of the state, they should have several direct and indirect influences upon the state's population.

2. But before these developments can be realized, it seems probable that the state will have a smaller proportion of the nation's population than it has had in the past. Since 1930 the number of inhabitants in South Dakota has not increased nearly as fast as in the nation as a whole.

3. The displacement of labor by mechanization, tractor power, and electrification probably has not reached its maximum, but the rate of displacement may decrease in the future.

4. The urban population of the state is expected to increase, partly because of its high natural increase, partly because of inmigration from rural areas, and partly because of an increase in the number of places of urban rank and increase of their territory by annexation.

5. Rural-nonfarm population probably will show a fairly stationary level. Losses in some of its elements will be offset by increases in others. There is likely to be a distinct increase of residents in suburban areas and of scattered nonfarm families. Many small trade centers will continue to decline; but other places may be strengthened by developing new service functions in place of those that were discontinued. Services related to an increasingly mobile population are likely to be much in demand. These are services that the rural-nonfarm population is in position to provide.

CHARLES E. ALLRED.

Department of Agricultural Economics, University of Tennessee.

Urban and Industrial Taiwan—Crowded and Resourceful. Arthur F. Raper, Hansheng Chuan, and Shao-hsing Chen. Foreign Operations Administration, Mutual Security Mission to China and National Taiwan University. Taipei, Taiwan: Good Earth Press, Ltd., 1954. 370 pp.

This is a Sino-American cooperative effort—in sponsorship, in conceptualization, in survey design, in field work, in analysis, and in presentation. The amount of effort has been enormous but the presentation is easy, almost simple; and the pictures tell the story of all the Chinas and all the Taiwans that exist side by side in the crowded cities. The internal purpose of the survey was to evaluate Sino-American activities, to provide a framework for policy decisions, and to establish bench marks against which changes could be measured. It is offered to outlanders as a quick way of seeing and understanding something of life and living on this island of tension, in minimum time—fifteen minutes to view charts and pictures, less than an hour to read general chapters and one's own subject specialty, an evening or two for one who wants to learn all he can of Taiwan!

The major materials, the major recommendations—and the major problems of Taiwan—are economic. With a population increasing at something like three per cent per year through the surplus of births over deaths, with about two million Mainlander immigrants concentrated in its cities, and with massive movements of youth from the villages that have no opportunities for them, the proliferating cities are crowded and unsanitary. Per-capita industrial production has not yet reached that attained at the apex of the Japanese development, in 1941. Household incomes are low, the average monthly income in June, 1953, being equivalent to $20 (U. S.) at the Hong Kong exchange rate, and a considerable portion of this being in "furnish." A fifth of adult male workers labor in marginal self-created jobs, while women clamor for household activities that will yield any return, however small.

The picture of living and health conditions in the cities of 100,000 and over that now include perhaps a fifth of Taiwan's population is a dangerous one. There are

more electric lights than in the old days, families boil the drinking water, and the miracle drugs reduce death rates. However, most floors are dirt and they are usually damp. Disposal is in the ancient ways, and screens are rare. The hog or the fowl lives with the family in the city as it did in the village. Schools are crowded and educational opportunities are more available to the Mainlanders than to the Taiwanese. And in this urban milieu—in an island economy that bears a heavy load of recent guests, civilian and military—the ancient ties of kinship in the villages no longer suffice as social security for the members who have moved away.

There are descriptions of leadership structures among Mainlanders and Taiwanese and of voluntary organizations that are proliferating in Taiwan much as they did in Japan during the years of the Occupation. The significance of the awakening of the people is difficult to interpret. The authors return again and again to the economic problems; for even sociologists studying the cities of Taiwan today cannot analyze society and culture without consideration of how people are to find the jobs that permit survival. The policy recommendation to solve the inexorable problems of population and poverty in the constricted island microcosm is industrialization; but the human and resources basis for export production that can compete with Japan, India, or Germany in the markets of the East is difficult to envision.

All life and living in Taiwan reflect the international tension of the present and the questions of the future. If we look at the tabular materials, read the text, and ponder the pictures of *Urban and Industrial Taiwan*, the pessimistic focus shifts. Instead we bow to the Chinese people, Mainlanders and Taiwanese, who have made life continue in the ways and under the conditions so graphically portrayed.

IRENE B. TAEUBER.

Office of Population Research,
Princeton University.

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Dean, Willamay T., Davis, Blanche C., and McConnell, Sarah L. *Nutritional Status of Pre-Adolescent Boys and Girls in the Blacksburg School District.* Va. Agr. Expt. Sta. Tech. Bull. 122, Blacksburg. 31 pp. Aug. 1954.

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Galloway, Robert E. *Employment of Rural People in Western Kentucky: A Study in Economic Area One.* Ky. Agr. Expt. Sta. Prog. Rpt. 24, in cooperation with Agr. Marketing Serv., USDA, Lexington. 8 pp. Mar. 1955.

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Le Beau, Oscar R. *Educational Practices of Farmer Cooperatives.* U. S. Farmer Coop. Serv., General Rpt. 8, Washington, D. C. 53 pp. June 1954.

Lindsey, Quentin W. *Farm Tenure: The Framework for Long-Run Adjustments in Southeastern Agriculture.* N. C. Agr. Expt. Sta. Tech. Bull. 110, in cooperation with Agr. Res. Serv., USDA, Raleigh. 54 pp. Aug. 1954.

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NEWS NOTES AND ANNOUNCEMENTS

Edited by Samuel W. Blizzard

THE RURAL SOCIOLOGICAL SOCIETY

PRELIMINARY ANNOUNCEMENT FOR THE 1955 ANNUAL MEETING

Student Union Building
The University of Maryland
College Park, Maryland
August 28-30

and

Shoreham Hotel
Washington, D. C.
August 31

(Also one session at East Lansing, Michigan, August 3. See below.)

LOCAL ARRANGEMENTS AT COLLEGE PARK

Lodging: Calvert Hall, University of Maryland. Available for the nights of August 27-31, inclusive, to persons 16 years of age and older. The sexes will be segregated. Rates $2.00-$2.50 per person per night, depending on number per room.

Send reservations to:

Wayne C. Rohrer, Local Arrangements Committee
Department of Sociology
College Park, Maryland

Meals: The Student Union will serve breakfast and luncheon, beginning August 29. There will be special dinners, as follows: Monday evening, August 29—Outdoor barbecue on campus; Tuesday evening, August 30—Banquet at Beltsville, Maryland.

Off-campus facilities: Several restaurants are available in College Park. The following motels are readily accessible. Send reservations directly to the motel. Early reservations advised.

Del Haven White House Cottages: AAA (air-conditioned), U. S. Route #1, College Park.

Rates: For 2—$6.00-$8.00. For 4—$9.00-$12.00 and up.

Royal Pine Tourist Court: AAA (air-conditioned), 9113 Baltimore Avenue, College Park.

Rates: For 2—$8.00. For 4—$12.00. (Extra cots, $1 each.)

Lord Calvert Hotel and Cottages: (window fans), 7200 Baltimore Avenue, College Park.

Rates: For 2—$6.00-$7.00. For 3—$7.50 with rollaway. For 4, 5, and 6—$12.00-$14.00. (Share-a-bath facilities available for less money.)

TENTATIVE PROGRAM

SUNDAY, AUGUST 28

4:00- 9:30 P. M. REGISTRATION

MONDAY, AUGUST 29

8:00 A. M. REGISTRATION

9:30 A. M. RURAL-URBAN MIGRATION

Chairman: HOMER L. HITT, Louisiana State University

Migration Patterns of the Rural Farm Population, Thirteen Economic Regions of the United States, 1940-1950 — GLADYS K. BOWLES, USDA.

Population Redistribution in Alabama—HENRY L. ANDREWS, University of Alabama.

Urban Impact on a Rural Township—VINCENT H. WHITNEY, Brown University.

Farm Backgrounds and Urban Participation—B. G. ZIMMER, University of Michigan.

Discussants: ROBERT L. MCNAMARA, University of Missouri.
CALVIN L. BEALE, USDA.
DUANE L. GIBSON, Michigan State College.
WALTER C. MCKAIN, University of Connecticut.

9:30 A. M. TECHNOLOGICAL CHANGE IN RURAL SOCIETY

Chairman: HOWARD W. BEERS, University of Kentucky

Technological Change in the Tennessee Watershed Area—ROBERT M. DIMIT, South Dakota State College.

The Role of Primary Groups in Adoption of Soil Conservation Practices—BART HAGUE, USDA.

Impact of Urbanization and Industrialization on Rural Venezuela —NORMAN W. PAINTER, University of Venezuela.

A Multiple Correlation Analysis of Factors Associated with the Adoption of Farm Practices—FREDERICK C. FLIEGEL, University of Wisconsin.

Discussants: LELAND B. TATE, Virginia Polytechnic Institute.
LEWIS W. JONES, Tuskegee Institute.
SHELDON G. LOWRY, North Carolina State College.
A. LEE COLEMAN, University of Kentucky.

12:00 Noon LUNCH

1:30 P. M. THE RURAL FAMILY

Chairman: OTIS D. DUNCAN, Oklahoma A. & M. College

Michigan Centennial Farms: A Study of Intra-Family Transmission and Succession Practices for a Continuous Period of 100 Years or More, and the Results of These Practices — ALBERT E. LEVAK, Michigan State College.

Child-Rearing Practices and Attitudes of Parents and Young Children Concerning the Role of Money in Family Living— BARDIN H. NELSON, Texas A. & M. College.

Family-Community Relationships in Two Rapidly Urbanizing Southern Communities: A Study in Family Acceptance-Rejection —J. JOEL MOSS, West Virginia University.

Levels of Living, Participation, and Attitudes of Older Persons in New York Rural Communities—PHILIP TAIETZ and OLAF F. LARSON, Cornell University.

Discussants: JAMES B. TARVER, Oklahoma A. & M. College.
SLOAN R. WAYLAND, Columbia University, Teachers College.
CHARLES E. RAMSEY, Cornell University.
J. L. CHARLTON, University of Arkansas.

1:30 P. M. APPLICATION OF RESEARCH FINDINGS

Chairman: Robert A. Polson, Cornell University

Sociological Research for Action Agencies—Walter L. Slocum, Washington State College.

A Case Study in the Research Interpretation Process—Harold F. Kaufman, Mississippi State College.

The Involvement of Agricultural Extension in the Rural-Urban Fringe—Glen L. Taggart, Michigan State College.

The Rural Self-Help Projects of the Commonwealth of Puerto Rico—Pablo B. Vazquez-Calcerrada, Social Programs Administration, Puerto Rico Department of Agriculture.

Discussants: Irving A. Spaulding, University of Rhode Island.
Harold E. Smith, Purdue University.
Wayne C. Rohrer, University of Maryland.
Jose M. Rios, Puerto Rico Agricultural Experiment Station.

4:00 P. M. ANNUAL BUSINESS MEETING

6:00 P. M. BARBECUE ON UNIVERSITY OF MARYLAND CAMPUS

7:30 P. M. RESEARCH ON PEASANT SOCIETIES

Chairman: Irwin T. Sanders, University of Kentucky

Socio-Economic Implications of a Growing Population in Programs of Economic Development—Chris A. Theodore, Boston University.

The Russian Peasant Today—Lawrence Krader, American University.

Research on the Brazilian Peasant—Paul H. Price, Louisiana State University.

Discussion from the floor, led by the chairman.

TUESDAY, AUGUST 30

9:30 A. M. SOCIAL PSYCHOLOGY OF RURAL LIFE

Chairman: Charles P. Loomis, Michigan State College

Rural and Urban Adolescents' Attitudes toward Moving—Raymond Payne, University of Georgia.

Personality Adjustment and Status—Archie O. Haller, University of Wisconsin.

Differential Role Imagery as a Factor in Evaluating Performance: A Study of Four Michigan County Agents—Jack J. Preiss, University of Missouri.

A Method of Studying the Roles of County Agents—Eugene A. Wilkening, University of Wisconsin.

Discussants: John C. Belcher, Oklahoma A. & M. College.
Harold T. Christensen, Purdue University.
James H. Copp, Kansas State College.
Bryce Ryan, Wayne University.

9:30 A. M. CORRELATES OF STATUS AND LOCALITY GROUPINGS

Chairman: Charles E. Lively, University of Missouri

Locating Rural Locality Groups—Roy C. Buck, Pennsylvania State University.

The Behavioral Correlates of Membership in Rural Neighborhoods—John R. Christiansen, University of Kentucky.

Socio-Economic Characteristics of Part-time and Full-time Farmers in the Twin Cities Area—GEORGE A. DONOHUE, University of Minnesota.

Value Orientations and Behavioral Correlates of Producer-Patrons in Purchasing Cooperatives—EMORY J. BROWN and ROBERT C. BEALER, Pennsylvania State University.

Relationship of Status Grouping to Differences in Participation—FRANCENA L. NOLAN, Pennsylvania State University.

Discussants: JAY W. ARTIS, Vanderbilt University.
A. L. BERTRAND, Louisiana State University.

12:00 Noon LUNCH

1:30 P. M. TOUR OF BELTSVILLE

6:00- 8:30 P. M. DINNER (at Beltsville)
[Program to be announced]

WEDNESDAY, AUGUST 31

[Joint sessions with the American Sociological Society.
All meetings at the Shoreham Hotel, Washington, D. C.]

10:00 A. M. POPULATION

Chairman: CONRAD F. TAEUBER, U. S. Bureau of the Census

Rural-Urban Differences in Fertility in Washington State—DON GIBBONS, University of Washington.

A Study of Differential Mortality—C. HORACE HAMILTON, North Carolina State College.

The Influence of Urban and Social Economic Factors on the Fertility of White Rural Farm People in South Carolina—ROBERT K. HIRZEL, Winthrop College.

The Demographic Effects of the Establishment of Heavy Industry in a Rural Area—C. TERENCE PIHLBLAD, University of Missouri.

1:30 P. M. SOCIAL STRATIFICATION—COMPARATIVE STUDIES

Chairman: LEONARD BROOM, University of California, Los Angeles

A Comparison of Occupational Mobility in the Soviet Union and the United States—ROBERT A. FELDMESSER, Russian Research Center, Harvard University.

Ethnic Stratification in a Philippine Village—CHESTER L. HUNT, Western Michigan College of Education.

Social Differentiation in Selected Lebanese Villages—GORDON K. HIRABAYASHI and LINCOLN ARMSTRONG, The American University at Cairo.

Class Structure in the Netherlands—E. W. HOFSTEE and G. A. KOOY, Landbouwhogeschool, The Netherlands.

Recent Studies of Social Stratification in Brazil—JUAREZ RUBENS LOPES, Escola de Sociologia e Politica, Sao Paulo, Brazil.

Differential Class Behavior in Denmark—KAARE SVALASTOGA, University of Copenhagen.

The Protestant Ethic, Level of Aspiration, and Social Mobility: An Empirical Test—RAYMOND W. MACK, RAYMOND J. MURPHY, and SEYMOUR YELLIN, Northwestern University.

3:30 P. M. THE SUBURBAN COMMUNITY

Chairman: NATHAN L. WHETTEN, University of Connecticut

Components of Growth in Metropolitan Suburban Populations—DONALD J. BOGUE and EMERSON SEIM, Miami University and University of Chicago.

Familism and Suburbanization: A Case for the Hypothesis of Social Choice—WENDELL BELL, Northwestern University.

Political and Economic Problems Growing out of Suburbanization—LYLE C. FITCH, Director of Fiscal and Economic Research, City of New York.

Informal Relationships and Personal Problems Engendered by Suburban Residence—WALTER T. MARTIN, University of Oregon.

Discussants: C. HORACE HAMILTON, North Carolina State College.
SAMUEL W. BLIZZARD, Pennsylvania State University.

8:00 P. M. PRESIDENTIAL ADDRESSES (joint sessions with the Society for the Study of Social Problems)

Presiding: ROBERT K. MERTON, Columbia University

Attitudes and the Social Act—HERBERT BLUMER, President, Society for the Study of Social Problems.

Some Observations on Theory Testing—WILLIAM H. SEWELL, President, Rural Sociological Society.

Sociology and the Practicing Professions—DONALD YOUNG, President, American Sociological Society.

JOINT SESSION

of

THE AMERICAN FARM ECONOMIC ASSOCIATION

and

THE RURAL SOCIOLOGICAL SOCIETY

Michigan State College
East Lansing, Michigan
August 3, 1955

TENTATIVE PROGRAM

THE LOW-INCOME FARM PROBLEM

Chairman: M. E. JOHN, Pennsylvania State University

Characteristics of the Low-Income Farmer—LOUIS J. DUCOFF, USDA.

Economics of the Low-Income Farm Problem—KENNETH L. BACHMAN, USDA.

Sociological Aspects of the Low-Income Farm Problem—OLAF F. LARSON, Cornell University.

Part-time Farming and the Low-Income Farm Problem—C. E. BISHOP, North Carolina State College.

Discussants: GLEN L. TAGGART, Michigan State College.
H. R. MOORE, Ohio State University.

LOCAL ARRANGEMENTS FOR EAST LANSING MEETING

Conference registration fee: $2.00 for men. Women and children free. Sessions of the American Farm Economic Association extend from Sunday, July 31 through Thursday, August 4.

Lodging and meals: Shaw Hall (men's dormitory):

Room rates: Two or three in a room—$3.00 per person for the first night, $2.00 for each additional night. Single rooms—$4.50 for the first night, $3.00 for each additional night. Separate floors for families and single persons.

Meals: $4.15 (plus tax) per day. Individual meals or meal tickets. Special meal, Tuesday evening, August 2.

Children 8 years old and under: Half price on meals and room.

A few rooms available at the Kellogg Center.

Advance reservations: American Farm Economic Association
c/o Continuing Education Service
Michigan State College
East Lansing, Michigan

RURAL SOCIOLOGICAL SOCIETY ARCHIVES

The library of the University of Missouri, Columbia, Missouri, is housing the archives of the Society. Charles E. Lively requests the aid of those who have materials which should be placed in the archives. Documents for the period before the Society was formally organized (1921-1935) are desired. Old programs, correspondence files of officers, minutes of meetings, membership lists, etc., are of interest. There is also a need for documentary materials relating to the period since the Rural Sociological Society has been organized. Materials relating to the life of distinguished members may become a part of the collection. Questions regarding the interest in specific materials may be addressed to: Charles E. Lively, Department of Rural Sociology, University of Missouri, Columbia, Missouri.

COLLEGES AND UNIVERSITIES

Brigham Young University. Ariel S. Ballif, formerly head of the Department of Sociology, was recently made dean of the Summer Session. He has also been granted a leave of absence to go to New Zealand as president of the New Zealand mission of the Church of Jesus Christ of Latter-day Saints.

Reed H. Bradford, recently returned from a three-year assignment with the Point Four Program in Iran, is now chairman of the department.

Joseph N. Symons has been appointed chairman of the Utah State Mental Health Association.

Ray Canning returned to the department after a year's leave of absence, during which time he did further work toward the Ph.D. degree at the University of Utah.

John Payne, who has been in Iran on the Point Four Program, will return to the department for the fall quarter.

Vernon W. Larsen is engaged in research for his doctoral dissertation at Cornell University.

Central University of Venezuela. George Sugarman from the American University, Washington, D. C., joined the staff this year to handle courses and develop research in Public Opinion.

Paul H. Landis was sponsored by the Department of Sociology and Cultural Anthropology for presentation before the fifth annual meeting of the Venezuelan Association for the Advancement of Science, in February. He presented a paper on "Social Change in the Modern World." George W. Hill chaired the panel and responses were made by J. L. Salcedo Bastardo, José Ramón Medina, Rafael Caldera, and Norman W. Painter. The first three responded with respect to the forces which determine the direction of change, and the latter presented a methodological scheme for the study of change.

James Silverberg presented a paper in the anthropological section of these meetings on "Field Methods Which We Ought to Emphasize in Venezuelan Social Anthropology."

Also participating from the department were Adelaida de Díaz-Ungría with a paper on Guarao Indian blood grouping, José M. Cruxent on the typology of Venezuelan shell mounds, and third-year student José A. Silva on some aspects of Guarao Indian social structure.

Norman W. Painter is dividing his time this year between teaching at the university and serving as consultant on industrial relations with the Creole Petroleum Corporation, with emphasis on worker-management relations at the Amuay Refinery.

The department plans for the coming year to establish student assistantships in both teaching and research activities.

Cornell University. Mary Eva Duthie is retiring, June 30, from her position as associate professor of rural sociology. She joined the staff in 1924 and has spent the major part of her time teaching and promoting community dramatics. She was responsible for organizing a very successful state association of community theatre groups in New York which has its annual conference at Cornell.

Miss Duthie did her undergraduate work at Western State Normal, Kalamazoo, Michigan, and Teachers College, Columbia University. She was awarded the Ph.D. by the University of Wisconsin. Just after World War I, she spent eighteen months in Prague, Czechoslovakia, where she organized the girls' club department of the YWCA Recreation Unit. When she came to Cornell, the extension work was handled by two full-time specialists, and it has now expanded to five full-time specialists.

She has been editor of the *Community Theatre Bulletin*, a quarterly publication which serves the interests of the community theatres of the state and is circulated widely outside of New York. During her sabbatic leave in 1949-50, she conducted a survey of community theatres in the United States in which data were gathered on the movement. It was the first time that information of this sort was made available.

W. A. Anderson has completed Bulletin 907, *Social Change in a Central New York Rural Community: A Restudy of the Waterville Community*, and Bulletin 909, *Urban Fringe Families and Their Social Participation*. Preliminary population bulletins issued include: *How New York State Population Increased, 1940 to 1950; Population Change in New York State, 1940 to 1950;* and *City and Village Population in New York State, 1900 to 1950.*

On June 1, 1955, Mrs. Mildred Hughes will complete her twenty-fifth year of service in the Department of Rural Sociology. Prior to her joining this department, she worked five years in the Department of Agricultural Economics at Cornell.

Charles E. Ramsey was appointed associate professor of rural sociology, August 1, 1954. He was previously on the staff at the University of Minnesota. He will teach research methods and do research in social organization.

Howard E. Thomas has been appointed to a second term on the Federal Advisory Council on Employment Security. During the summer he will serve on the staff of the Workshop in Human Development to be held at Cornell under the joint sponsorship of the National 4-H Foundation and the Sears-Roebuck Foundation. He was appointed a member of the Research Committee of the Conference on the Church and Social Welfare. Last summer he began a second term on the National Migrant Committee; and this March, his promotion to professor of rural sociology was announced. He hopes to spend his sabbatic year, 1955-56, in the Far East; he is "an old China hand."

The following people have been assistants in the department during the academic year: Robert H. Fosen, James W. Longest, Agaton Pal, and Miriam Terry. Agaton Pal was Robert Polson's assistant at Silliman University during the year he was in the Philippines on a Fulbright appointment.

The University of Florida. Orlando Fals Borda, Guggenheim Fellow and candidate for the Ph.D. degree at the University of Florida, spent the winter months in Colombia gathering materials for his doctoral dissertation, "The Institutional Relationships of Man to the Land in Boyacá, Colombia." At the present time his earlier study of the Colombian rural community of Saucio is in process of publication by the University of Florida Press under the title *Peasant Society in Transition.*

T. Lynn Smith is serving on the Governor's Committee on Latin-American Relations. He plans to return to Colombia and Ecuador during the months of August and September for further studies of colonization and settlement on the eastern slopes of the Andes. The revised edition of his book, *Brazil: People and Institutions*, has been published by the Louisiana State University Press.

Joseph Sardo is engaged upon some studies of population trends for the Florida Council on Higher Education. This work is under the general supervision of John M. Maclachlan, head of the Department of Sociology.

Garrett Biblical Institute. The Interdenominational School for Rural Leaders will be held from June 21 to July 22. The course in Rural Sociology is being taught by Randall Hill, of Kansas State College. Frank Miller, agricultural economist from the University of Missouri, is teaching the course in that field. Don Koontz, professor of sociology and director of the Warren County Group Ministry, at Simpson College, Indianola, Iowa, will teach "The Program of the Rural Church." A new feature of the school will be a seminar, "The Responsible Society among Rural People." This is an application of the World Council

of Churches theme to the rural community. The seminar will work on background data to be used in preparation for an international seminar on a similar theme at Chateau Bossey, Celigny, Switzerland, in the summer of 1956, under the sponsorship of the Ecumenical Institute of the World Council of Churches. Rockwell C. Smith is directing the seminar.

University of Kentucky. Irwin T. Sanders, distinguished professor of sociology, is in Greece on a special assignment to evaluate the program of the American Farm School in Salonika and the social impact made by the school's graduates. Following this one-month assignment, he will be in Yugoslavia and Italy for a few weeks. He is editor of the Yugoslav handbook in the series being issued by the Mid-European Studies Center. Sanders was inaugurated as president of the Southern Sociological Society at the recent annual meeting. During recent months he has been serving as a special consultant to the Save the Children Federation, to evaluate their community development program in the Southern Appalachians.

A seminar on Collectivization in Eastern Europe, held at the university on April 14-16, brought together twenty-five Eastern European area specialists, fifteen sociologists, and fifteen agricultural economists to discuss the topic from varied points of view. The background papers and committee discussions will be published by the University of Kentucky Press under the editorship of Irwin Sanders.

J. W. Gladden, associate professor of sociology, has been named to the National Advisory Board of the Student YMCA for a three-year term. He currently serves as chairman of the Area Student Committee of the Southern YMCA.

Earl Mayhew, retiring state director of the Farmers Home Administration in Kentucky, joined the staff in rural sociology, May 1. He will serve as extension specialist and will work in the general field of program analysis and development, especially for extension services to low-income farmers. Prior to his twenty years in the FHA and its predecessors, Mayhew was a county agent in Kentucky. He has done graduate work in rural sociology at Cornell University.

Ralph J. Ramsey returns soon to his work as extension specialist in rural sociology, after a sabbatic year of advanced study in adult education at the University of Chicago and after teaching for the second successive summer in the Extension curriculum at the University of Arkansas.

C. Arnold Anderson, professor of sociology, who has been on sabbatic leave at the University of Lund, Sweden, has received a Fulbright appointment and will remain in Sweden another year. In December, he gave a paper on "American Research on Stratification and Social Mobility" at a conference in Amsterdam, The Netherlands.

Several staff members are involved in activities in the field of intergroup relations, especially in relation to school desegregation. Sidney Kaplan, assistant professor of sociology, served recently as consultant to a metropolitan area youth institute in Louisville, sponsored by the National Conference of Christians and Jews. Irwin Sanders is a member of the Board of Directors of the newly formed Kentucky Council on Human Relations. Willis A. Sutton, assistant professor of sociology, and A. Lee Coleman, associate professor of sociology and associate rural sociologist, are consultants on the staff of the Council to aid communities and school systems in desegregation discussions and adjustments. Coleman has made a number of talks on desegregation to community and school groups and recently served as consultant in a human relations workshop for teachers in the Atlanta, Georgia, area.

Howard W. Beers, head of the Departments of Sociology and Rural Sociology, is chairman of the staff committee for this summer's seminar on Intergroup Relations at the university. Meeting June 13 to July 2, the seminar this year will have an interdisciplinary social science staff, will be primarily for Kentucky school administrators, and will focus on problems relating to the Supreme Court's recent decision on public school segregation. A. Lee Coleman is a member of the staff.

Oklahoma A. & M. College. Sam Schulman has been appointed assistant professor of sociology and rural life. He replaces Roger Nett and is teaching courses in Social Control and Family. Schulman was formerly instructor in social science at the University of Florida, where he received his Ph.D. in 1954. He is currently engaged in a research project on man-land relationships.

Joseph S. Vandiver has been promoted to the rank of professor. He also continues his appointment as consultant sociologist under the Oklahoma A. & M. FOA contract with Ethiopia.

Solomon Sutker has been promoted to associate professor. During the present se-

mester he is participating as guest lecturer in an Executive Development Institute, sponsored by the School of Industrial Engineering and Management of Oklahoma A. & M. College.

Herman M. Case has been doing research on desegregation problems in Oklahoma, in part supported by the Oklahoma A. & M. Research Foundation. During the last semester, Case and Sutker were guest lecturers in a short course for the Oklahoma State Highway Patrol.

John C. Belcher has been awarded a grant by the Health Information Foundation for the analysis of health data secured in a survey of a western Oklahoma county. During the present year he is serving as membership chairman for the Rural Sociological Society.

James D. Tarver has been promoted to associate professor. He is a member of the Subcommittee on the Impacts of Technology on Rural Social Organization, Southwestern Land Tenure Research Committee. The subcommittee has completed a regional research study on "Social Aspects of Agricultural Mechanization in the Southwest," to be published in the regional series. Tarver is currently engaged in research on population trends.

Purdue University. William F. Ogburn, recently of the University of Chicago, was visiting professor at Purdue University during the current spring semester. He taught courses on the Sociology of the Family and Social Aspects of Technology, and, in addition, lectured widely before campus and community groups.

Louis Schneider will return to the department in September following a year's leave of absence with the Center for Advanced Study of the Ford Foundation's Division of Behavioral Sciences.

A new book entitled *The Sociology of Social Problems* is being released this spring by Appleton-Century-Crofts under the joint authorship of Gerald R. Leslie, of the Purdue Sociology Department, and Paul Horton, of Western Michigan College.

For the first time, the Sociology Department has been holding a series of staff seminars this year. These are held periodically in faculty homes, each one following the leadership of a particular staff member and centering on a specific and relevant sociological topic. Graduate students have participated along with regular staff members.

During the present semester the course in Marriage and Family Relationships is being broadcast over WBAA, the university station, as one of its series called "The Listeners' Classroom." The tapes are being saved for later experimental use in extension courses throughout the state.

Applications are being received for graduate assistantship appointments for the 1955-56 academic year. Appointments range from $75 per month for ten hours of service a week to $150 per month for twenty hours.

University of Rhode Island. John B. Mitchell was promoted to the rank of assistant professor of sociology and assistant extension professor of rural sociology last July. He received the doctorate from the University of Missouri during the summer of 1954.

On January 17 and 18, 1955, the Department of Rural Sociology and the Agricultural Extension Service held a leadership conference for the Rhode Island Department of Agriculture and Conservation. Approximately forty-five members of the Department of Agriculture and Conservation attended the sessions. A. J. Nichols, Foreign Training Division, FAS, USDA, and Edward O. Moe, Cornell University, were out-of-state participants in the program. Nichols spoke on leadership and agricultural problems abroad, and Moe discussed farmers' acceptance of new agricultural practices. The identification of group leaders and the functions of leadership were topics handled by John B. Mitchell. Irving A. Spaulding contributed comments on the cultural characteristics of Rhode Island and on group unity and problem people. Other faculty participants of the University of Rhode Island were members of the Departments of Industrial Management, Agricultural Economics, Geology and Geography, and Marine Biology.

Virginia Polytechnic Institute. The 26th annual Rural Ministers' Summer School will be held July 4-8. Donald R. Fesler, extension sociologist, is director of the school. Harold E. Smith, Purdue University, will lecture on the rural church and the community, and Samuel W. Blizzard, Pennsylvania State University, will lecture on the rural parish minister.

Utah State Agricultural College. R. W. Roskelley returned to the Department of Sociology at the beginning of the academic year after having spent three years in Iran as chief of the Agricultural Division. Roskelley went to Iran as a social scientist, but later was shifted to the administrative position and had many opportunities to apply basic concepts and theories to the development of the agricultural phase of the Point Four Program in Iran during his stay.

Don C. Carter is on leave this year studying for his doctor's degree at Columbia University.

Winthrop College. The fifth annual Sociology Forum for high school and college students was held on April 19 on the topic "The Developing South." John E. Ivey, executive director of the Southern Regional Education Board, and former professor of sociology at the University of North Carolina, was the guest lecturer. A feature of the forum was the use of small discussion groups led by high-school students.

PRIVATE AGENCIES

The National Council on Family Relations. Armond D. Willis has been appointed executive secretary of the council.

Senior Citizens of America. This nonprofit organization was recently formed to serve people over forty years of age in all walks of life. It is offering a special group service to business, industrial, civic, and professional agencies which wish to help their senior employees in planning for retirement. The service includes a sixty-four page monthly magazine, *Senior Citizen*, which is published without advertising and contains a wide range of material. For information about the organization, write to Senior Citizens of America, 1701 Sixteenth Street, Washington 9, D. C.

NEW PUBLICATIONS

Juvenile Delinquency Digest. A new publication devoted to current events and major incidents of juvenile delinquency of concern to professional workers has been announced. Information may be secured from the editorial offices, 161 East 32nd Street, New York 16, N. Y.

PROPOSED AMENDMENTS TO THE CONSTITUTION AND BYLAWS OF THE RURAL SOCIOLOGICAL SOCIETY

The proposals which follow are based upon the recommendations of the special Committee on Classes of Membership, which was authorized at the 1953 annual meeting and which was continued by action of the 1954 meeting with instructions to prepare appropriate amendments prior to the 1955 annual meeting. The proposals serve as the Committee's report for 1955.

We, the undersigned active members of the Rural Sociological Society, propose that Article I of the Bylaws of the Society as published in *Rural Sociology*, September, 1954 (pp. 324-325), be amended as follows:

1. The article shall be named "Membership and Dues" in place of "Membership Dues."

2. For the present article, which relates only to active and student members, the following shall be substituted:

Section 1. The membership of the society shall consist of the following classes: active, student, joint, emeritus, and contributing. Each member shall be eligible to vote and to hold office, and shall be entitled to one subscription to the official journal of the society.

Section 2. An *active member* shall pay dues of five dollars ($5.00) per annum.

[This is not a change from the present.]

Section 3. Undergraduate and graduate students in residence at educational institutions, who have not completed all requirements for the Ph.D. and who are sponsored by an active member of the society, may be admitted as student members of the society. A *student member* shall pay dues of two dollars and seventy-five cents ($2.75) per annum.

[This more clearly specifies eligibility for student membership but does not change the amount of dues.]

Section 4. Joint membership in the active category may be taken out by a husband and wife upon payment of annual dues of six dollars and fifty cents ($6.50). Both persons shall have the rights and privileges of membership in the society, provided that they shall together be entitled to one subscription to the society's official journal.

[Joint memberships at the $6.50 rate are now allowed in practice but are not provided for by present bylaws. However, the present practice applies to "pair of persons" rather than only to husband and wife.]

Section 5. Any member of the society, when retired by his institution because of having reached retirement age, may apply to become an *emeritus member*, provided that he has paid dues for 7 out of 10 years immediately prior to such application. The annual dues of emeritus members

shall be the same as for student members.

[This section adds a new class of members. It expresses the desire of the society that active members retain their professional connections upon retirement. It gives at least a token recognition of the fact that most members will have a reduced income upon retirement. At the same time, the society and the journal are reasonably protected against any major financial drain resulting from having a substantial number of emeritus members. It assumes that most persons who are members 7 out of 10 years immediately preceding retirement will, in practice, have been members during most of their professional careers as sociologists.

This recommendation represents the majority opinion of the Classes of Membership Committee.]

Section 6. A *contributing membership* may be taken out by any person otherwise eligible for membership upon payment annually of seven dollars ($7.00) or more.

[This simply legalizes a present practice.]

It is also proposed that Article III, Section 3, be amended to read:

Three dollars and fifty cents ($3.50) of the dues of each active and contributing member and of each pair of joint members and two dollars and fifty cents ($2.50) of the dues of each student and emeritus member shall be paid to the managing editor for a subscription to *Rural Sociology*.

[This simply brings this section in accord with the recommendations on classes of members.]

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